

CCR MANUSCRIPT NOTIFICATION (NOVEMBER 2011)

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

There were no submissions reported this month.

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

Sui Y, Gagnon S, Dzutsev A, Zhu Q, Yu H, Hogg A, Wang Y, Xia Z, Belyakov IM, Venzon D, **Klinman D**, Strober W, Kelsall B, **Franchini G**, and **Berzofsky JA**: TLR agonists and/or IL-15 adjuvanted mucosal SIV vaccine reduced gut CD4+ memory T cell loss in SIVmac251-challenged rhesus macaques. *Vaccine*. 30: 59-68, 2011. (VB)

Yu H, Tawab-Amiri A, Dzutsev A, Sabatino M, Aleman K, **Yarchoan R**, Terabe M, Sui Y, and **Berzofsky JA**: IL-15 *ex vivo* overcomes CD4+ T cell deficiency for the induction of human antigen-specific CD8+ T cell responses. *J. Leuk. Biol.* 90: 205-214, 2011. (VB)

Rahma OE, Achtar E, Czystowska M, Szajnik ME, Wieckowski E, Bernstein S, Herrin VE, Shams MA, Steinberg SM, **Merino M**, Gooding W, Visus C, DeLeo AB, Wolf JK, Bell JG, **Berzofsky JA**, Whiteside TL, and **Khleif SN**: A Gynecologic Oncology Group phase II trial comparing p53 peptide subcutaneous injection and intravenous pulsed dendritic cells in high-risk ovarian cancer patients. *Cancer Immunology Immunotherapy*. In press. (VB)

Nakashima H, Terabe M, **Berzofsky JA**, Husain SR, and Puri RK: A Novel combination immunotherapy for cancer by IL-13 receptor alpha2 targeted DNA vaccine and immunotoxin in murine tumor model. *J. Immunol.* In press. (VB)

Isakov D, Dzutsev A, **Berzofsky JA**, and Belyakov IM: Lack of IL-7 and IL-15 signaling affects interferon-gamma production by, more than survival of, small intestinal intraepithelial memory CD8+ T cells. *Eur. J. Immunol.* In press. (VB)

Terabe M and **Berzofsky JA** (Eds.): *Natural Killer T cells: Balancing the regulation of tumor immunity*. Springer, New York. ISBN 978-1-4614-0612-9, 2011. (VB)

Berzofsky JA: A push-pull vaccine strategy using Toll-like receptor ligands, IL-15, and blockade of negative regulation to improve the quality and quantity of T cell immune responses. *Vaccine*. In press. (VB)

Berzofsky JA, Terabe M, and Wood LV: Strategies to use immune modulators in therapeutic vaccines against cancer. *Seminars in Oncol.* In press. (VB)

CCR Nanobiology Program - Robert Blumenthal, Ph.D.

Bindewald E, Afonin K, Jaeger L, and **Shapiro BA**: Multi-strand DNA secondary structure prediction and nanostructure design including pseudoknots. ACS Nano. In press. (CCRNP)

Hua L, Wang JTL, Ji X, Malhotra A, Khaladkar M, **Shapiro BA**, and Zhang K: A method for discovering common patterns from two RNA secondary structures and its application to structural repeat detection. J. Bioinform. Comput. Biol. In press. (CCRNP)

Massimelli MJ, Kang JG, Majerciak V, Le S-Y, Liewehr DJ, Steinberg SM, and Zheng Z-M: Stability of a long noncoding viral RNA depends on a 9-nt core element at the RNA 5' end to interact with viral ORF57 and cellular PABPC1. Internatl. J. Biol. Sci. 7(8): 1145-1160, 2011. (CCRNP; PI: **Shapiro BA**)

Ponraj P, Chen W, Singarayan MG, Stewart C, Streaker E, Feng Y, and **Dimitrov D**: Expressed antibody repertoires in human cord blood cells: 454 sequencing analysis of germline gene usage, junctional diversity and somatic mutations. Immunogenetics. In press. (CCRNP)

Puri A, Jang H, Yavlovich A, Masgood A, Veenstra T, Luna C, Aranda-Espinoza H, **Nussinov R**, and **Blumenthal R**: Material properties of matrix lipids determine conformation and intermolecular reactivity of a diacetylenic phosphatidylcholine in the lipid bilayer. Longmuir. 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.

Qian Y, Hua E, Bisht K, Woditschka S, Skordos KW, Liewehr DJ, Steinberg SM, Brogi E, Akram MM, Killian JK, Edelman DC, Pineda M, Scurci S, Degenhardt YY, Laquerre S, Lampkin TA, **Meltzer PS**, **Camphausen K**, **Steeg PS**, and Palmieri D: Inhibition of Polo-like kinase 1 prevents the growth of metastatic breast cancer cells in the brain. Clin Exp Metastasis. 28(8): 899-908, 2011. (ROB)

Simone NL, Dan T, Shih J, Smith SL, Sciuto L, Lita E, Lippman ME, Glatstein E, Swain SM, Danforth DN, and **Camphausen K**: Twenty-five year results of the national cancer institute randomized breast conservation trial. Breast Cancer Res Treat. In press. (ROB)

Warren K, Bent R, Wolters PL, Prager A, Hanson R, Packer R, Shih J, and **Camphausen K**: A phase 2 study of pegylated interferon α -2b (PEG-Intron®) in children with diffuse intrinsic pontine glioma. *Cancer*. In press. (ROB)

Gulley JL, **Madan RA**, **Tsang KY**, Arlen PM, **Camphausen K**, Mohebtash M, Kamrava M, **Schlom J**, and **Citrin D**: A pilot safety trial investigating a vector-based vaccine targeting carcinoembryonic antigen in combination with radiotherapy in patients with gastrointestinal malignancies metastatic to the liver. *Expert Opin Biol Ther*. 11(11): 1409-1418, 2011. (ROB)

Coleman CN, Whitcomb RC, Miller C, and Noska MA: Commentary on the Combined Disaster in Japan (1). *Radiat Res*. In press. (ROB)

Shay JW, Cucinotta FA, Sulzman FM, **Coleman CN**, and Minna JD: From Mice and Men to Earth and Space: Joint NASA-NCI Workshop on Lung Cancer Risk Resulting from Space and Terrestrial Radiation. *Cancer Res*. 71(22): 6926-6929, 2011. (ROB)

Ryan JL, Krishnan S, Movsas B, **Coleman CN**, Vikram B, and Yoo SS: Decreasing the Adverse Effects of Cancer Therapy: An NCI Workshop on the Preclinical Development of Radiation Injury Mitigators/Protectors. *Radiat Res*. 176(5): 688-691, 2011. (ROB)

Bourboulia D, Jensen-Taubman S, Rittler MR, Han HY, Chatterjee T, Wei B, and **Stetler-Stevenson WG**: Endogenous Angiogenesis Inhibitor Blocks Tumor Growth via Direct and Indirect Effects on Tumor Microenvironment. *Am J Pathol*. 179(5): 2589-2600, 2011. (ROB)

Molecular Imaging Program - Peter Choyke, M.D.

Figueiras RG, Padhani AR, Goh VJ, Vilanova JC, González SB, Martín CV, Caamaño AG, Naveira AB, and **Choyke PL**: Novel oncologic drugs: what they do and how they affect images. *Radiographics*. 31(7): 2059-2091, 2011. (MIP)

Mitsunaga M, Ogawa M, Kosaka N, Rosenblum LT, **Choyke PL**, and Kobayashi H: Cancer cell-selective in vivo near infrared photoimmunotherapy targeting specific membrane molecules. *Nat Med*. In press. (MIP)

Urano Y, Sakabe M, Kosaka N, Ogawa M, Mitsunaga M, Asanuma D, Kamiya M, Young MR, Nagano T, **Choyke PL**, and Kobayashi H: Rapid Cancer Detection by Topically Spraying a γ -Glutamyltranspeptidase-Activated Fluorescent Probe. *Sci. Transl. Med*. 3(110): 110ra119, 2011. (MIP)

McCann TE, Kosaka N, Koide Y, Mitsunaga M, **Choyke PL**, Nagano T, Urano Y, and Kobayashi H: Activatable Optical Imaging with a Silica-Rhodamine Based Near Infrared (SiR700) Fluorophore: A comparison with cyanine based dyes. *Bioconjug Chem*. In press. (MIP)

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

Klarmann K, Ji M, Li H, Satyanarayana A, Kim W, Bowers E, Gudmundsdottir B, and **Keller J**: Novel Targets in Myelogenous Leukemia: The Id Family of Proteins. In: Tech – Myeloid Leukemia – Basic Mechanisms of Leukemogenesis. 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.

Wang C, Liu Z, Woo CW, Li Z, Wang L, Wei JS, Marquez VE, **Bates SE**, Jin Q, Khan J, Ge K, and **Thiele CJ**: EZH2 mediates epigenetic silencing of neuroblastoma suppressor genes CASZ1, CLU, RUNX3 and NGFR. Cancer Res. In press. (MOB)

Fojo T, Amiri-Kordestani L, and **Bates SE**: Potential Pitfalls of Crossover and Thoughts on Iniparib in Triple-Negative Breast Cancer. J Natl Cancer Inst. In press. (MOB)

Maier CR, Hollander MC, Hobbs EA, Dogan I, Linnoila RI, and **Dennis PA**: Nicotine does not enhance tumorigenesis in mutant k-ras-driven mouse models of lung cancer. Cancer Prev Res (Phila). 4(11): 1743-1751, 2011. (MOB)

West KA and **Dennis PA**: Starting with the ABCs: Akt in Breast Cancer. Mol Cancer Ther. 10(11): 2031, 2011. (MOB)

King KS, Prodanov T, Kantorovich V, **Fojo T**, Hewitt JK, Zacharin M, Wesley R, Lodish M, Raygada M, Gimenez-Roqueplo AP, McCormack S, Eisenhofer G, Milosevic D, Kebebew E, Stratakis CA, and Pacak K: Metastatic Pheochromocytoma/Paraganglioma Related to Primary Tumor Development in Childhood or Adolescence: Significant Link to SDHB Mutations. J Clin Oncol. 29(31): 4137-4142, 2011. (MOB)

Kelly RJ, Petrini I, Rajan A, Wang Y, and **Giaccone G**: Thymic Malignancies: From Clinical Management to Targeted Therapies. J Clin Oncol. In press. (MOB)

Goodwin R, **Giaccone G**, Calvert H, Lobbezoo M, and Eisenhauer EA: Targeted agents: How to select the winners in preclinical and early clinical studies? Eur J Cancer. In press. (MOB)

Lee JM, Han JJ, Altwerger G, and **Kohn EC**: Proteomics and biomarkers in clinical trials for drug development. J Proteomics. 74(12): 2632-2641, 2011. (MOB)

Laboratory of Metabolism - Frank Gonzalez, Ph.D.

There were no submissions reported this month.

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

Shukla S, Schwartz C, Kapoor K, Kouanda A and **Ambudkar SV**: Use of Baculovirus BacMam vectors for expression of ABC drug transporters in mammalian cells. Drug Metab Dispo. 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.

Sung MH and **Hager GL**: More to Hi-C than meets the eye. Nature Genet. 43: 1047, 2011. (LRBGE)

Poulikakos P, Persaud Y, Janakiraman M, Kong X, Ng C, Moriceau G, Shi H, Atefi M, Titz B, Gabay M, Salton M, Dahlman K, Tadi M, Wargo J, Flaherty K, Kelley M, **Misteli T**, Chapman PB, Sosman JA, Graeber TG, Ribas A, Lo RS, Rosen N, and Solit DB: Acquired resistance to RAF inhibitors is mediated by splicing isoforms of BRAF(V600E) that dimerize in a RAS-independent manner. Nature. In press. (LRBGE)

Scaffidi P and **Misteli T**: In vitro generation of human cells with cancer stem cell properties. Nature Cell Biol. 13: 1051-1061, 2011. (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.

Besson GJ, McMahon D, **Maldarelli F**, and Mellors JW: Short-course raltegravir intensification does not increase 2 long terminal repeat episomal HIV-1 DNA in patients on effective antiretroviral therapy. Clin. Infect. Dis. In press. (HVIB)

Kearney M, Lee K, Bagni RK, Wiegand A, Spindler J, **Maldarelli F**, Pinto PA, **Linehan WM**, Vocke CD, Delviks-Frankenberry KA, deVere White RW, Del Prete GQ, Mellors JW, Lifson, JD, **KewalRamani VN**, **Pathak VK**, Coffin JM, and **Le Grice SFJ**: Nucleic acid, antibody, and virus culture methods to detect xenotropic MLV-related virus (XMRV) in macaque and human blood samples. *Adv. Virol.* In press. (HVIB)

Spindler J, Hackett J, Jr., Qui X, Wiegand A, Boltz VF, Swanson P, Bream JH, Jacobon LP, Li X, Rinaldo CR, Wolinsky SM, Coffin JM, Kearney MF, and Mellors JW: Prevalence of XMRV nucleic acid and antibody in HIV-1 infected men and in men at risk for HIV-1 infection. *Adv. Virol.* In press. (HVIB; PI: **Hughes SH**)

Retroviral Replication Laboratory - Stephen Hughes, Ph.D.

Chung S, Miller JT, Johnson BC, **Hughes SH**, and **Le Grice SFJ**: Mutagenesis of the human immunodeficiency virus reverse transcriptase p51 subunit defines residues contribution to vinylogous urea inhibition of ribonuclease H activity. *J. Biol. Chem.* In press. (RRL)

Datta SAK, Zuo X, Clark PK, Campbell SJ, and Wang Y-X, and **Rein A**: Solution properties of murine leukemia virus Gag protein: Differences from HIV-1 Gag. *J. Virol.* In press. (RRL)

Johnson BC, Metifiot M, **Pommier Y**, and **Hughes SH**: Molecular Dynamics approaches estimate the binding energy of HIV-1 integrase inhibitors and correlate with in vitro activity. *Antimicrob. Agents Chemother.* In press. (RRL)

Rein A: Murine leukemia viruses: Objects and organisms. *Adv. Virol.* vol. 2011, article ID 403419, 14 pages, 2011. (RRL)

Schaller T, Ocwieja KE, Rasaiyaah J, Price AJ, Brady T, Roth S, Hué S, Fletcher AJ, Lee K, **KewalRamani VN**, Noursadeghi M, Jenner RG, James LC, Bushman FD, and Towers GJ: HIV-1 capsid-cyclophilin interactions determine nuclear import pathway, integration targeting and replication efficiency. *PLoS Pathogens.* In press. (RRL)

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.

Killian JK, Walker RL, Bilke S, Chen Y, Davis S, Cornelison R, Smith WI, and **Meltzer PS**: Genome-wide methylation profiling in archival formalin-fixed paraffin-embedded tissue samples. *Methods Mol Biol.* 823: 107-118, 2011. (GB)

Warren KE, Killian K, Suuriniemi M, Wang Y, Quezado M, and **Meltzer PS**: Genomic aberrations in pediatric diffuse intrinsic pontine gliomas. *Neuro Oncol.* In press. (GB)

Valenzuela MS, Hu L, Lueders J, Walker R, and **Meltzer PS**: Broader utilization of origins of DNA replication in cancer cell lines along a 78 KB region of human chromosome 2q34. *J Cell Biochem.* In press. (GB)

Barsotti A, Beckerman R, Laptenko O, Huppi K, **Caplen NJ**, and Prives C: P53-dependent induction of PCT1 and MIR-1204. *J Biol. Chem.* In press. (GB)

Le MT, Shyh-Chang N, Khaw SL, Chin L, The C, Tay J, O'Day E, Korzh V, Yang H, **Lal A**, Lieberman J, Lodish HF, and Lim B: Conserved Regulation of p53 Network Dosage by MicroRNA-125b Occurs through Evolving miRNA-Target Gene Pairs. *PLoS Genet.* 7(9): e1002242, 2011. (GB)

Lal A, Thomas MP, Altschuler G, Navarro F, O'Day E, Li X, Concepcion C, Han Y, Thiery J, Rajani DK, Deutsch A, Hofmann O, Ventura A, Hide W, and Lieberman J: Capture of microRNA-bound mRNAs Identifies the Tumor Suppressor miR-34a as a Regulator of Growth Factor Signaling. *PLoS Genet.* In press. (GB)

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

Wright L, Ryscavage A, **Merlino G**, and **Yuspa SH**: Modeling the Transcriptional Consequences of Epidermal Growth Factor Receptor Ablation in Ras-Initiated Squamous Cancer. *Clin Cancer Res.* In press. (LCBG)

Aprelikova O and **Green JE**: MicroRNA regulation in cancer-associated fibroblasts. *Cancer Immunol. Immunother.* In press. (LCBG)

Kim CH, Kim HK, Rettig RL, Kim J, Lee ET, Aprelikova O, Choi IJ, Munroe DJ and **Green JE**: miRNA signature associated with outcome of gastric cancer patients following chemotherapy. *BMC Medical Genomics.* In press. (LCBG)

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.

Altekruse SF, McGlynn KA, Dickie LA, and **Kleiner DE**: Hepatocellular carcinoma confirmation, treatment, and survival in SEER registries, 1992-2008. *Hepatology*. In press. (LP)

Aung PP, Sarlomo-Rikala M, Lasota J, Lai JP, Wang ZF, and **Miettinen M**: KBA62 and PNL2: Two newer melanoma markers – Immunohistochemical analysis of 1563 tumors including metastatic, desmoplastic, and mucosal melanomas and their mimics. *Am. J. Surg. Pathol.* In press. (LP)

Dumont AG, Rink L, Godwin AK, **Miettinen M**, Joensuu H, Strosberg JR, Gronchi A, Corless CL, Goldstein D, Rubin BP, Maki RG, Lazar AJ, Lev D, Trent JC, and von Mehren M: A nonrandom association of gastrointestinal stromal tumor (GIST) and desmoids tumor (deep fibromatosis): a case series of 28 patients. *Ann. Oncol.* In press. (LP)

Miettinen M, Sarlomo-Rikala M, Rysz J, Lasota J, and Wang ZF: Vascular endothelial growth factor receptor 2 (VEGFR2) as a marker for malignant vascular tumors and mesothelioma – Immunohistochemical study of 262 vascular and 1640 non-vascular tumors. *Am. J. Surg. Pathol.* In press. (LP)

Miettinen M and Wang ZF: Prox1 transcription factor as a marker for vascular tumors – Evaluation of 314 vascular endothelial and 1086 nonvascular tumors. *Am. J. Surg. Pathol.* 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. and Susan Gottesman, Ph.D.

Mehta AI, Choi BD, Raghavan R, Brady M, Friedman AH, Bigner DD, **Pastan I**, and Sampson JH: Imaging of convection enhanced delivery of toxins in humans. *Toxins*. 3: 201-206, 2011. (LMB)

Weldon JE and **Pastan I**: A guide to taming a toxin – recombinant immunotoxins constructed from *Pseudomonas* exotoxin A for the treatment of cancer. *FEBS J*. 278: 4683-4700, 2011. (LMB)

Phung YT, Barbone D, Broaddus VC, and **Ho M**: Rapid generation of in vitro multicellular spheroids for the study of monoclonal antibody therapy. *J. Cancer*. 2: 507-514, 2011. (LMB)

Ho M: Advances in liver cancer antibody therapies: a focus on glypican-3 and mesothelin. *BioDrugs*. 25: 275-284, 2011. (LMB)

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

Naiche LA, Arora R, Kania A, **Lewandoski M**, and Papaioannou VE: Identity and fate of Tbx4-expressing cells reveal developmental cell fate decisions in the allantois, limb, and external genitalia. *Dev. Dyn.*, 240: 2290-2300, 2011. (CDBL)

Kitagaki J, Ueda Y, Chi X, Sharma N, Elder CM, Truffer E, Costantini F, **Lewandoski M**, and **Perantoni AO**: Fgf8 is essential for formation of the ductal system in the male reproductive tract. *Development*. 138: 5369-5378, 2011. (CDBL)

Kawakami Y, Marti M, Kawakami H, Itou J, Quach T, Johnson A, Saharam S, O'Leary DD, Nakagawa Y, **Lewandoski M**, Pfaff S, Evans SM, and Izpisua Belmonte JC: Islet1-mediated activation of the β -catenin pathway is necessary for hindlimb initiation in mice. *Development*. 138: 4465-4473, 2011. (CDBL)

Zhu J, Nguyen MD, Nakamura E, Yang J and **Mackem S**: Cre-mediated recombination can induce apoptosis in vivo by activating the p53 DNA damage-induced pathway. *Genesis*. In press. (CDBL)

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

Ji J, Kinders RJ, Zhang Y, Rubinstein L, Kummar S, Parchment RE, Tomaszewski JE, and **Doroshov JH**: Modeling pharmacodynamic response to the poly(ADP-ribose) polymerase inhibitor ABT-888 in human peripheral blood mononuclear cells. *PLoS One*. 6: e26152, 2011. (LMP)

Kazuki Y, Hoshiya H, Takiguchi M, Abe s, Iida Y, Osaki M, Katoh M, Hiratsuka M, Shirayoshi Y, Hiramatsu K, Ueno E, Kajitani N, Yoshino T, Kazuki K, Ishihara C, Takehara S, Tsuji S, Ejima F, Toyoda A, Sakaki Y, **Larionov V**, Kouprina, K, and Oshimura M: Refined human artificial chromosome vectors for gene therapy and animal transgenesis. *Gene Ther.* 18: 384-393, 2011. (LMP)

Redon CE, Nakamura AJ, Sordet O, Dickey JS, Gouliaeva K, Tabb B, Lawrence S, Kinders RJ, **Bonner WM**, and Sedelnikova OA: gamma-H2AX detection in peripheral blood lymphocytes, splenocytes, bone marrow, xenografts and skin. *Methods Mol. Biol.* 682: 249-270, 2011. (LMP)

Noskov VN, Lee NC, **Larionov V**, and Kouprina N: Rapid generation of long tandem DNA repeat arrays by homologous recombination in yeast to study their function in mammalian genomes. *Biol. Proced. Online.* 13: 8, 2011. (LMP)

Patel JB, Appaiah HN, Burnett RM, Bhat-Nakshatri P, Wang G, Mehta R, Badve S, Thomson MJ, Hammond S, **Steeg P**, Liu Y, and Nakshatri H: Control of EV-1 oncogene expression in metastatic breast cancer cells through microRNA miR-22. *Oncogene.* 30: 1290-1301, 2011. (LMP)

Nguyen D, Zajac-Kaye M, Rubinstein L, Voeller D, Tomaszewski JE, Kummar S, Chen AP, **Pommier Y**, **Doroshov JH**, and Yang SX: Poly(ADP-ribose) polymerase inhibition enhances p53-dependent and -independent DNA damage responses induced by DNA damaging agent. *Cell Cycle.* In press. (LMP)

Johnson BC, Metifiot M, **Pommier Y**, and **Hughes SH**: Molecular dynamics approaches estimate the binding energy of HIV-1 integrase inhibitors and correlate with in vitro activity. *Antimicrob. Agents Chemother.* 56: 411-419, 2012. (LMP)

Kobayashi M, Sabouri Z, Sabouri S, Kitawaki Y, **Pommier Y**, Abe T, Kiyonari H, and Honjo T: Decrease in topoisomerase I is responsible for activation-induced cytidine deaminase (AID)-dependent somatic hypermutation. *Proc. Natl. Acad. Sci USA.* In press. (LMP)

Zhao XZ, Maddali M, Metifiot M, Smith SJ, Vu BC, Marchand C, **Hughes SH**, **Pommier Y**, and **Burke Jr TR**: Bicyclic hydroxyl-pyrrolopyridine-trione containing HIV-1 integrase inhibitors. *Chem. Biol. Drug. Des.* 79: 157-165, 2012. (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.

Balagopalan L, Ashwell BA, Bernot KM, Akpan IO, Quasba N, Barr VA, and **Samelson LE**: Enhanced T-cell signaling in cells bearing linker for activation of T-cell (LAT) molecules resistant to ubiquitylation. *Proc. Natl. Acad. Sci. USA.* 108: 2885-2890, 2011. (LCMB)

Sherman E, Barr V, Manley S, Patterson G, Balagopalan L, Akpan I, Regan CK, Merrill RK, Sommers CL, Lippincott-Schwartz J, and **Samelson LE**: Functional Nanoscale Organization of Signaling Molecules Downstream of the T Cell Antigen Receptor. *Immunity*. In press. (LCMB)

Balagopalan L, Sherman E, Barr VA, and **Samelson LE**: Imaging techniques for assaying lymphocyte activation in action. *Nat. Rev. Immunol.* 11: 21-33, 2011. (LCMB)

Kortum RL, Sommers C, Alexander CP, Pinski JM, Li W, Grinberg A, Lee J, Love PE, and **Samelson LE**: Targeted *Sos1* deletion reveals its critical role in early T-cell development. *Proc. Natl. Acad. Sci. USA.* 108: 12407-12412, 2011. (LCMB)

Halpin D, **Kalab P**, Wang J, Weis K and Heald R: Mitotic spindle assembly around RCC1-coated beads in *Xenopus* egg extracts. *PLOS One*. In press. (LCMB)

Kalab P, Solc P and Motlik J: The role of RanGTP gradient in vertebrate oocyte maturation. *Results Probl Cell Differ.* 53: 235-267, 2011. (LCMB)

Soderholm JF, Bird SL, **Kalab P**, Sampathkumar Y, Hasegawa K, Uehara-Bingen M, Weis K and Heald R: Importazole, a Small Molecule Inhibitor of the Transport Receptor Importin- α^2 . *ACS Chem. Biol.* 6: 700-708, 2011. (LCMB)

Krensky A, Bennett W, Vincenti F, Brunton L (Eds.). *Immunosuppressants, Tolerogens, and Immunostimulants*. In: Goodman and Gilman's *The Pharmacological Basis of Therapeutics*. 12th Edition. New York: McGraw-Hill; 2011, p. 1005-1029. (LCMB)

Castiello L, Stroncek DF, Finn MW, Wang E, Marincola FM, **Clayberger C**, **Krensky AM** and Sabatino M: 15 kDa Granulysin versus GM-CSF for monocytes differentiation: analogies and differences at the transcriptome level. *J. Transl. Med.* 9: 41, 2011. (LCMB)

Finn MW, **Clayberger C** and **Krensky AM**: Expression and purification of 15kDa granulysin utilizing an insect cell secretion system. *Protein Expr Purif.* 75(1): 70-74, 2011. (LCMB)

Saini RV, Wilson C, Finn MW, Wang T, **Krensky AM** and **Clayberger C**: Granulysin delivered by cytotoxic cells damages endoplasmic reticulum and activates caspase-7 in target cells. *J. Immunol.* 186: 3497-3504, 2011. (LCMB)

Semple PL, Watkins M, Davids V, **Krensky AM**, Hanekom WA, Kaplan G and Ress S: Induction of granulysin and perforin cytolytic mediator expression in 10-week-old infants vaccinated with BCG at birth. *Clin. Dev. Immunol.* 2011: 438463, 2011. (LCMB)

Lai D, Zhu J, Wang T, Hu-Li J, Terabe M, **Berzofsky JA**, **Clayberger C** and **Krensky AM**: KLF13 sustains thymic memory-like CD8+ T cells in BALB/c mice by regulating IL-4-generating invariant natural killer T cells. *J. Exp. Med.* 208: 1093-1103, 2011. (LCMB)

Castiello L, Sabatino M, Jin P, **Clayberger C**, Marincola FM, **Krensky AM** and Stroncek DF: Monocyte-derived DC maturation strategies and related pathways: a transcriptional view. *Cancer Immunol. Immunother.* 60: 457-466, 2011. (LCMB)

Garimella S, Rocca A and **Lipkowitz S**: WEE1 inhibition sensitizes basal breast cancer cells to TRAIL-induced apoptosis. *Mol Cancer Res.* In press. (LCMB)

Yoon HY, Kales SC, Luo R, **Lipkowitz S** and **Randazzo PA**: ARAP1 association with CIN85 affects epidermal growth factor receptor endocytic trafficking. *Biol. Cell.* 103: 171-184, 2011. (LCMB)

Lipkowitz S and **Weissman AM**: RINGs of good and evil: RING finger ubiquitin ligases at the crossroads of tumour suppression and oncogenesis. *Nat. Rev. Cancer.* 11: 629-643, 2011. (LCMB)

Chavez KJ, Garimella SV and **Lipkowitz S**: Triple Negative Breast Cancer Cell Lines: One Tool in the Search for Better Treatment of Triple Negative Breast Cancer. *Breast Disease.* 32(1): 35-48, 2011. (LCMB)

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

Mohebtash M, Tsang KY, Madan RA, Huen NY, Poole DJ, Jochems C, Jones J, Ferrara T, Heery CR, Arlen PM, Steinberg SM, Pazdur M, Rauckhorst M, Jones EC, **Dahut WL**, **Schlom J**, and **Gulley JL**: A Pilot Study of MUC-1/CEA/TRICOM Poxviral-Based Vaccine in Patients with Metastatic Breast and Ovarian Cancer. *Clin Cancer Res.* 17(22): 7164-7173, 2011. (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.

Qian WJ and **Burke Jr TR**: Investigation of unanticipated alkylation at the N(p) position of a histidyl residue under Mitsunobu conditions and synthesis of orthogonally protected histidine analogues. *J Org Chem.* 76: 8885-8890, 2011. (CBL)

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

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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.

Jones KS, Lambert S, Bouttier M, Benit L, **Ruscetti FW**, Hermine O, and Pique C: Molecular aspects of HTLV-1 entry: functional domains of the HTLV-1 surface subunit (SU) and their relationships to the entry receptors. *Viruses*. 3: 794-810, 2011. (LEI)

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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.

Metabolism Branch - Thomas Waldmann, M.D.

Chen J, Petrus M, Bamford R, Shih JH, Morris JC, Janik JE, and **Waldmann TA**: Increase serum soluble interleukin-15 receptor alpha (sIL-15R α) levels in T-cell large granular lymphocyte leukemia. *Blood*. In press. (MET)

Steel JC, **Waldmann TA**, and Morris JC: Interleukin-15 biology and its therapeutic implications in cancer. *Cell*. In press. (MET)

Vinay V, Esposito D, Sumpter T, Broadt, T, Hartley J, Knapp IV G, Chen W, Jiang M, Roach J, Yang X, Giardina S, Mitra G, Yovandich J, Creekmore S, **Waldmann TA**, and Zhu J: Clinical Manufacturing of Recombinant Human Interleukin. *Biotech. Prog.* In press. (MET)

Perera PY, Lichy JH, **Waldmann, TA**, and Perera LP: The role of interleukin-15 in inflammation and immune responses to infection: Implications for its therapeutic use. *Microbes and Infect.* In press. (MET)

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.

Veeranna RP, Haque M, Davis DA, Yang M, and **Yarchoan R**: Kaposi's sarcoma-associated herpesvirus latency-associated nuclear antigen induction by hypoxia and hypoxia-inducible factors. *J. Virol.* In press. (HAMB)

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Basic Research Laboratory

Cheryl Winkler

Limou S, Delaneau O, van Manen D, An P, Sezgin E, Le Clerc S, Coulonges C, Troyer JL, Veldink JH, van den Berg LH, Spadoni JL, Taing L, Labib T, Montes M, Delfraissy JF, Schachter F, **O'Brien SJ**, Buchbinder S, van Natta ML, Jabs DA, Froguel P, Schuitemaker H, **Winkler CA**, and Zagury JF: Multi-cohort genome-wide association study reveals a new signal of protection against HIV-1 acquisition. *J Infect Dis.* In press. (BRL)

Emeritus Scientists

Victor Marquez

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