

## Selected Publications Citing 21<sup>st</sup> Century Biochemicals Custom Peptides

**A687V EZH2 Is a Driver of Histone H3 Lysine 27 (H3K27) Hypertrimethylation.** Heidi M. Ott, Alan P. Graves, Melissa B. Pappalardi, Michael Huddleston, Wendy S. Halsey, Ashley M. Hughes, Arthur Groy, Edward Dul, Yong Jiang, Yuchen Bai, Roland Annan, Sharad K. Verma, Steven D. Knight, Ryan G. Kruger, Dashyant Dhanak, Benjamin Schwartz, Peter J. Tummino, Caretha L. Creasy, and Michael T. McCabe **Mol. Cancer Ther.**, Dec 2014; 13: 3062 - 3073.

**Effect of *Rothia mucilaginosa* enzymes on gliadin (gluten) structure, deamidation, and immunogenic epitopes relevant to celiac disease.** Na Tian, Guoxian Wei, Detlef Schuppan, and Eva J. Helmerhorst **Am J Physiol Gastrointest Liver Physiol**, Oct 2014; 307: G769 - G776.

**Cutting Edge: The UNC93B1 Tyrosine-Based Motif Regulates Trafficking and TLR Responses via Separate Mechanisms.** Karin Pelka, Kshiti Phulphagar, Jana Zimmermann, Rainer Stahl, Jonathan L. Schmid-Burgk, Tobias Schmidt, Jan-Hendrik Spille, Larisa I. Labzin, Sudhir Agrawal, Ekambar R. Kandimalla, Jean-Laurent Casanova, Veit Hornung, Ann Marshak-Rothstein, Stefan Höning, and Eicke Latz **J. Immunol.**, Oct 2014; 193: 3257 - 3261.

**Susceptibility to HLA-DM Protein Is Determined by a Dynamic Conformation of Major Histocompatibility Complex Class II Molecule Bound with Peptide.** Liusong Yin, Peter Trenth, Abigail Guce, Marek Wieczorek, Sascha Lange, Jana Sticht, Wei Jiang, Marissa Bylsma, Elizabeth D. Mellins, Christian Freund, and Lawrence J. Stern. **J. Biol. Chem.**, Aug 2014; 289: 23449 - 23464.

**Rapid Proliferation and Differentiation Impairs the Development of Memory CD8+ T Cells in Early Life.** Norah L. Smith, Erin Wissink, Jocelyn Wang, Jennifer F. Pinello, Miles P. Davenport, Andrew Grimson, and Brian D. Rudd. **J. Immunol.**, Jul 2014; 193: 177 - 184.

**Chloride Sensing by WNK1 Involves Inhibition of Autophosphorylation.** Alexander T. Piali, Thomas M. Moon, Radha Akella, Haixia He, Melanie H. Cobb, and Elizabeth J. Goldsmith. **Sci. Signal.**, May 2014; 7: ra41.

**Simplified and Efficient Quantification of Low-abundance Proteins at Very High Multiplex via Targeted Mass Spectrometry.** Michael W. Burgess, Hasmik Keshishian, D. R. Mani, Michael A. Gillette, and Steven A. Carr. **Mol. Cell. Proteomics**, Apr 2014; 13: 1137 - 1149.

**Protein Kinase A–Phosphorylated KV1 Channels in PSD95 Signaling Complex Contribute to the Resting Membrane Potential and Diameter of Cerebral Arteries.** Christopher L. Moore, Piper L. Nelson, Nikhil K. Parelkar, Nancy J. Rusch, and Sung W. Rhee. **Circ. Res.**, Apr 2014; 114: 1258 - 1267.

**GLP-1 receptor signaling is not required for reduced body weight after RYGB in rodents.** Jianping Ye, Zheng Hao, Michael B. Mumphrey, R. Leigh Townsend, Laurel M. Patterson, Nicholas Stylopoulos, Heike Münzberg, Christopher D. Morrison, Daniel J. Drucker, and Hans-Rudolf Berthoud. **Am J Physiol Regulatory Integrative Comp Physiol**, Mar 2014; 306: R352 - R362.

**Both Targeted Mass Spectrometry and Flow Sorting Analysis Methods Detected the Decreased Serum Apolipoprotein E Level in Alzheimer's Disease Patients.** Sun-Ho Han, Jun Seok Kim, Youngju Lee, Heesun Choi, Jong-Won Kim, Duk Lyul Na, Eun Gyeong Yang, Myeong-Hee Yu, Daehee Hwang, Cheolju Lee, and Inhee Mook-Jung. **Mol. Cell. Proteomics**, Feb 2014; 13: 407 - 419.

**Therapeutic Depletion of Natural Killer Cells Controls Persistent Infection.** Stephen N. Waggoner, Keith A. Daniels, and Raymond M. Welsh. **J. Virol.**, Feb 2014; 88: 1953 - 1960.

**A Targeted and Adjuvanted Nanocarrier Lowers the Effective Dose of Liposomal Amphotericin B and Enhances Adaptive Immunity in Murine Cutaneous Leishmaniasis.** Pirouz M. Daftarian, Geoffrey W. Stone, Leticia Kovalski, Manoj Kumar, Aram Vosoughi, Maitee Urbietta, Pat Blackwelder, Emre Dikici, Paolo Serafini, Stephanie Duffort, Richard Boodoo, Alhelí Rodríguez-Cortés, Vance Lemmon, Sapna Deo, Jordi Alberola, Victor L. Perez, Sylvia Daunert, and Arba L. Ager. **The Journal of Infectious Disease**, Dec 2013; 208: 1914 - 1922.

**PC61 (Anti-CD25) Treatment Inhibits Influenza A Virus-Expanded Regulatory T Cells and Severe Lung Pathology during a Subsequent Heterologous Lymphocytic Choriomeningitis Virus Infection.** Anke R. M. Kraft, Myriam F. Wlodarczyk, Laurie L. Kenney, and Liisa K. Selin. **J. Virol.**, Dec 2013; 87: 12636 - 12647.

**Cysteine Racemization on IgG Heavy and Light Chains.** Qingchun Zhang and Gregory C. Flynn **J. Biol. Chem.**, Nov 2013; 288: 34325 - 34335.

**Disparate Epitopes Mediating Protective Heterologous Immunity to Unrelated Viruses Share Peptide-MHC Structural Features Recognized by Cross-Reactive T Cells.** Zu T. Shen, Tina T. Nguyen, Keith A. Daniels, Raymond M. Welsh, and Lawrence J. Stern. **J. Immunol.**, Nov 2013; 191: 5139 - 5152.

**Trapping and Identification of Cellular Substrates of the *Staphylococcus aureus* ClpC Chaperone** Justin W. Graham, Mei G. Lei, and Chia Y. Lee **J. Bacteriol.**, Oct 2013; 195: 4506 - 4516.

**Modulation of CD8+ T cell responses to AAV vectors with IgG-derived MHC class II epitopes.** Daniel J Hui, Etiena Basner-Tschakarjan, Yifeng Chen, Robert J Davidson, George Buchlis, Mustafa Yazicioglu, Gary C Pien, Jonathan D Finn, Virginia Haurigot, Alex Tai, David W Scott, Leslie P Cousens, Shangzhen Zhou, Anne S De Groot and Federico Mingozzi. **Molecular Therapy** Volume 21 no. 9, 1727-1737, Sept. 2013.

**Helical domains that mediate lipid solubilization and ABCA1-specific cholesterol efflux in apolipoproteins C-I and A-II** Loren E. Smith, Jere P. Segrest, and W. Sean Davidson **J. Lipid Res.**, Jul 2013; 54: 1939 - 1948.

**Improved Native Isolation of Endogenous Protein A-Tagged Protein Complexes.** John LaCava, Nagarajan Chandramouli, Hua Jiang, Michael P. Rout Laboratory of Cellular and Structural Biology, The Rockefeller University, New York, NY, USA and 2 Proteomics Resource Center, The Rockefeller University, New York, NY, USA **BioTechniques** 54:213-216 April 2013 doi 10.2144/000114012

**Pazopanib Enhances Paclitaxel-Induced Mitotic Catastrophe in Anaplastic Thyroid Cancer.** Crescent R. Isham, Ayoko R. Bossou, Vivian Negron, Kelly E. Fisher, Rakesh Kumar, Laura Marlow, Wilma L. Lingle, Robert C. Smallridge, Eric J. Sherman, Vera J. Suman, John A. Copland, and Keith C. Bible. **Science Translational Medicine**, Jan 2013; 5: 166ra3.

**Tregitope update: Mechanism of action parallels IVIg .** Leslie P. Cousins, Ryan Tassone, Bruce D. Mazer, Vasanthi Ramachandiran, David W. Scott, Anne S. De Groot. **Autoimmunity Reviews**, Volume 12, Issue 3, January 2013, Pages 436-443

**Recognition of the Different Structural Forms of the Capsid Protein Determines the Outcome following Infection with Porcine Circovirus Type 2** Benjamin R. Tribble, Andrew W. Suddith, Maureen A. Kerrigan, Ada G. Cino-Ozuna, Richard A. Hesse, and Raymond R. Rowland **J. Virol.**, Dec 2012; 86: 13508 - 13514.

**Suppression of Food Intake by Glucagon-Like Peptide-1 Receptor Agonists: Relative Potencies and Role of Dipeptidyl Peptidase-4.** Lene Jessen, Benedikt A. Aulinger, Jonathan L. Hassel, Kyle J. Roy, Eric P. Smith, Todd M. Greer, Stephen C. Woods, Randy J. Seeley, and David A. D'Alessio **Endocrinology**, Dec 2012; 153: 5735 – 5745.

**Development and Validation of Reagents and Assays for EZH2 Peptide and Nucleosome High-Throughput Screens.** Elsie Diaz, Carl A. Machutta, Stephanie Chen, Yong Jiang, Christopher Nixon, Glenn Hofmann, Danielle Key, Sharon Sweitzer, Mehul Patel, Zining Wu, Caretha L. Creasy, Ryan G. Kruger, Louis LaFrance, Sharad K. Verma, Melissa B. Pappalardi, Baochau Le, Glenn S. Van Aller, Michael T. McCabe, Peter J. Tummino, Andrew J. Pope, Sara H. Thrall, Benjamin Schwartz, and Martin Brandt. **J Biomol Screen**, Dec 2012; 17: 1279 - 1292.

**HLA-DM Constrains Epitope Selection in the Human CD4 T Cell Response to Vaccinia Virus by Favoring the Presentation of Peptides with Longer HLA-DM–Mediated Half-Lives** Liusong Yin, J. Mauricio Calvo-Calle, Omar Dominguez-Amorocho, and Lawrence J. Stern **J. Immunol.**, Oct 2012; 189: 3983 - 3994.

**Design and analysis of immune-evading enzymes for ADEPT therapy.** Daniel C. Osipovitch, Andrew S. Parker, Christabell D. Makokha, Joseph Desrosiers, Warren C. Kett, Leonard Moise, Chris Bailey-Kellogg, and Karl E. Griswold **Protein Eng. Des. Sel.**, Oct 2012; 25: 613 - 624.

**A Human CD4<sup>+</sup> T Cell Epitope in the Influenza Hemagglutinin Is Cross-Reactive to Influenza A Virus Subtypes and to Influenza B Virus.** Jenny Aurielle B. Babon, John Cruz, Francis A. Ennis, Liusong Yin, and Masanori Terajima. **J. Virol.**, Sep 2012; 86: 9233 - 9243.

**High-throughput screen using a single-cell tyrosine phosphatase assay reveals biologically active inhibitors of tyrosine phosphatase CD45.** Stephanie M. Stanford, Rekha G. Panchal, Logan M. Walker, Dennis J. Wu, Matthew D. Falk, Sayantan Mitra, Sagar S. Damle, David Ruble, Teodora Kaltcheva, Sheng Zhang, Zhong-Yin Zhang, Sina Bavari, Amy M. Barrios, and Nunzio Bottini. **PNAS**, Aug 2012; 10.1073/pnas.1205028109.

**Design and analysis of immune-evading enzymes for ADEPT therapy** Daniel C. Osipovitch, Andrew S. Parker, Christabell D. Makokha, Joseph Desrosiers, Warren C. Kett, Leonard Moise, Chris Bailey-Kellogg, and Karl E. Griswold. **Protein Eng. Des. Sel.**, Aug 2012; 10.1093/protein/gzs044.

**Enhancing and Limiting Endothelin-1 Signaling with a Cell-penetrating Peptide Mimicking the Third Intracellular Loop of the ETB Receptor.** CO Sallum, JL Wilson, C Rupasinghe, E Berg, J Yu, DS Green, L Taylor, D Mierke, and P Polgar. *Chem Biol Drug Des*, Sep 2012; 80(3): 374-81.

**Sequential Multiplexed Analyte Quantification Using Peptide Immunoaffinity Enrichment Coupled to Mass Spectrometry.** Jeffrey R. Whiteaker, Lei Zhao, Chenwei Lin, Ping Yan, Pei Wang, and Amanda G. Paulovich. *Mol. Cell. Proteomics*, Jun 2012; 11: M111.015347.

**Hypercholesterolemic LDL receptor-deficient mice mount a neutrophilic response to tuberculosis despite the timely expression of protective immunity.** Gregory W. Martens, Therese Vallerskog, and Hardy Kornfeld J. *Leukoc. Biol.*, Jun 2012; 91: 849 - 857.

**Increased Protection from Vaccinia Virus Infection in Mice Genetically Prone to Lymphoproliferative Disorders.** Mina O. Seedhom, Keisha S. Mathurin, Sung-Kwon Kim, and Raymond M. Welsh. *J. Virol.*, Jun 2012; 86: 6010 - 6022.

**Mutation of A677 in histone methyltransferase EZH2 in human B-cell lymphoma promotes hypertrimethylation of histone H3 on lysine 27 (H3K27)** Michael T. McCabe, Alan P. Graves, Gopinath Ganji, Elsie Diaz, Wendy S. Halsey, Yong Jiang, Kimberly N. Smitheman, Heidi M. Ott, Melissa B. Pappalardi, Kimberly E. Allen, Stephanie B. Chen, Anthony Della Pietra, III, Edward Dul, Ashley M. Hughes, Seth A. Gilbert, Sara H. Thrall, Peter J. Tummino, Ryan G. Kruger, Martin Brandt, Benjamin Schwartz, and Caretha L. Creasy *PNAS*, Feb 2012; 10.1073/pnas.1116418109.

**An *rhs* gene of *Pseudomonas aeruginosa* encodes a virulence protein that activates the inflammasome** Vanderlene L. Kung, Sonal Khare, Christian Stehlik, Elizabeth M. Bacon, Ami J. Hughes, and Alan R. Hauser. *PNAS*, Jan 2012; 109: 1275 - 1280.

**Peptide-Conjugated PAMAM Dendrimer as a Universal DNA Vaccine Platform to Target Antigen-Presenting Cells.** Daftarian P, Kaifer AE, Li W, Blomberg BB, Frasca D, Roth F, Chowdhury R, Berg EA, Fishman JB, Al Sayegh HA, Blackwelder P, Inverardi L, Perez VL, Lemmon V, Serafini P. *Cancer Res.* 2011 Dec 15;71(24):7452-7462

**Conformational lability in the class II MHC 3<sub>10</sub> helix and adjacent extended strand dictate HLA-DM susceptibility and peptide exchange.** Corrie A. Painter, Maria P. Negroni, Katherine A. Kellersberger, Zarixia Zavala-Ruiz, James E. Evans, and Lawrence J. Stern. *PNAS*, Nov 2011; 108: 19329 - 19334.

**Pyroglutamate-A $\beta$  3 and 11 colocalize in amyloid plaques in Alzheimer's disease cerebral cortex with pyroglutamate-A $\beta$  11 forming the central core.** Sullivan CP, Berg EA, Elliott-Bryant R, Fishman JB, McKee AC, Morin PJ, Shia M, Fine RE. *Neurosci Lett.* 2011 Nov 14;505(2):109-12.

**Identification and quantification of osteopontin splice variants in the plasma of lung cancer patients using immunoaffinity capture and targeted mass spectrometry.** Jiang Wu, Pooja Pungaliya, Eugenia Kraynov, and Brian Bates. *Biomarkers*, 2011, 1–9, 20 November 2011

**Altered membrane lipid domains limit pulmonary endothelial calcium entry following chronic hypoxia** Michael L. Paffett, Jay S. Naik, Melissa A. Riddle, Steven D. Menicucci, Antonio J. Gonzales, Thomas C. Resta, and Benjamin R. Walker *Am J Physiol Heart Circ Physiol*, Oct 2011; 301: H1331 - H1340.

**Small Heat Shock Proteins Induce a Cerebral Inflammatory Reaction** Ilona B. Bruinsma, Mieke de Jager, Anna Carrano, Alexandra A. M. Versleijen, Robert Veerhuis, Wilbert Boelens, Annemieke J. M. Rozemuller, Robert M. W. de Waal, and Marcel M. Verbeek **J. Neurosci.**, Aug 2011; 31: 11992 - 12000.

**Molecular Mechanisms of Viral and Host Cell Substrate Recognition by Hepatitis C Virus NS3/4A Protease** Keith P. Romano, Jennifer M. Laine, Laura M. Deveau, Hong Cao, Francesca Massi, and Celia A. Schiffer **J. Virol.**, Jul 2011; 85: 6106 - 6116.

**Virus-Induced Transient Immune Suppression and the Inhibition of T Cell Proliferation by Type I Interferon.** Heather D. Marshall, Stina L. Urban, and Raymond M. Welsh. **J. Virol.**, Jun 2011; 85: 5929 - 5939.

**Antibody Recognition of Porcine Circovirus Type 2 Capsid Protein Epitopes after Vaccination, Infection, and Disease.** Benjamin R. Tribble, Maureen Kerrigan, Nicholas Crossland, Megan Potter, Kay Faaberg, Richard Hesse, and Raymond R. Rowland. **Clin. Vaccine Immunol.**, May 2011; 18: 749 - 757.

**Evaluation of Large Scale Quantitative Proteomic Assay Development Using Peptide Affinity-based Mass Spectrometry.** Jeffrey R. Whiteaker, Lei Zhao, Susan E. Abbatiello, Michael Burgess, Eric Kuhn, Chen Wei Lin, Matthew E. Pope, Morteza Razavi, N. Leigh Anderson, Terry W. Pearson, Steven A. Carr, and Amanda G. Paulovich. **Mol. Cell. Proteomics**, Apr 2011; 10: M110.005645

**Repeated In Vivo Stimulation of T and B Cell Responses in Old Mice Generates Protective Immunity against Lethal West Nile Virus Encephalitis.** Jennifer L. Uhrlaub, James D. Brien, Douglas G. Widman, Peter W. Mason, and Janko Nikolich-Zugich **J. Immunol.**, Apr 2011; 186: 3882 - 3891.

**Role of the angiotensin II AT<sub>2</sub> receptor in inflammation and oxidative stress: opposing effects in lean and obese Zucker rats.** Rifat Sabuhi, Quaisar Ali, Mohammad Asghar, Najah Riesh Hadi Al-Zamily, and Tahir Hussain. **Am J Physiol Renal Physiol**, Mar 2011; 300: F700 - F706.

**Hyperphagia and Increased Fat Accumulation in Two Models of Chronic CNS Glucagon-Like Peptide-1 Loss of Function.** Jason G. Barrera, Kenneth R. Jones, James P. Herman, David A. D'Alessio, Stephen C. Woods, and Randy J. Seeley. **J. Neurosci.**, Mar 2011; 31: 3904 - 3913.

**Coordinated activities of wild-type plus mutant EZH2 drive tumor-associated hypertrimethylation of lysine 27 on histone H3 (H3K27) in human B-cell lymphomas.** Christopher J. Sneeringer, Margaret Porter Scott, Kevin W. Kuntz, Sarah K. Knutson, Roy M. Pollock, Victoria M. Richon, and Robert A. Copeland. **Proc. Natl. Acad. Sci., U.S.A.**, Dec 2010; 107: 20980 - 20985

**Discovery of a Novel and Rich Source of Gluten-Degrading Microbial Enzymes in the Oral Cavity.** Helmerhorst EJ, Zamakhchari M, Schuppan D, Oppenheim **PLoS ONE** 5(10) FG (2010): e13264. doi:10.1371/journal.pone.0013264

**A 24-Residue Peptide (p5), Derived from p35, the Cdk5 Neuronal Activator, Specifically Inhibits Cdk5-p25 Hyperactivity and Tau Hyperphosphorylation.** Ya-Li Zheng, Niranjana D. Amin, Ya-Fang Hu, Parvathi Rudrabhatla, Varsha Shukla, Jyotshnabala Kanungo, Sashi Kesavapany, Philip Grant, Wayne Albers, and Harish C. Pant **J. Biol. Chem.**, Oct 2010; 285: 34202 - 34212.

**Bi-specific MHC Heterodimers for Characterization of Cross-reactive T Cells.** Zu T. Shen, Michael A. Brehm, Keith A. Daniels, Alexander B. Sigalov, Liisa K. Selin, Raymond M. Welsh, and Lawrence J. Stern. *J. Biol. Chem.*, Oct 2010; 285: 33144 - 33153.

**Inhibition of NAD(P)H oxidase potentiates AT2 receptor agonist-induced natriuresis in Sprague-Dawley rats.** Rifat Sabuhi, Mohammad Asghar, and Tahir Hussain *Am J Physiol Renal Physiol*, Oct 2010; 299: F815 - F820.

**Cyclin-dependent kinase 5 activity is required for T cell activation and induction of experimental autoimmune encephalomyelitis.** Tej K. Pareek, Eric Lam, Xiaojing Zheng, David Askew, Ashok B. Kulkarni, Mark R. Chance, Alex Y. Huang, Kenneth R. Cooke, and John J. Letterio *J. Exp. Med.*, Oct 2010; 207: 2507 - 2519.

**IFN- $\beta$  and Self-MHC Divert CD8 T Cells into a Distinct Differentiation Pathway Characterized by Rapid Acquisition of Effector Functions.** Heather D. Marshall, Amanda L. Prince, Leslie J. Berg, and Raymond M. Welsh. *J. Immunol.*, Aug 2010; 185: 1419 - 1428.

**Modulation of the Delta Protein Kinase C Interaction With The "d" Subunit of F1Fo ATP Synthase in Neonatal Cardiac Myocytes: Development of Cell-Permeable, Mitochondrial-Targeted Inhibitor and Facilitator Peptides.** Tiffany T. Nguyen, Mourad Ogbi, Qilin Yu, Jordan B. Fishman, Warren Thomas, David Fulton, and John A. Johnson. July, 2010. *J. Biol. Chem.*, 285: 22164 – 22173.

**Limiting angiotensin II signaling with a cell penetrating peptide mimicking the second intracellular loop of the angiotensin II type I receptor.** Jun Yu, Linda Taylor, Dale Mierke, Eric Berg, Michael Shia, Jordan Fishman, and Peter Polgar. 2010. *Chem. Biol. & Drug Design*, Chem Biol Drug Des. 76(1): 70-6.

**Analysis of Apoptosis of Memory T Cells and Dendritic Cells during the Early Stages of Viral Infection or Exposure to Toll-Like Receptor Agonists** Kapil Bahl, Anette Hübner, Roger J. Davis, and Raymond M. Welsh *J. Virol.*, May 2010; 84: 4866 - 4877.

**Mutant Huntingtin Fragments Form Oligomers in a Polyglutamine Length-dependent Manner *in Vitro* and *in Vivo*** Justin Legleiter, Emily Mitchell, Gregor P. Lotz, Ellen Sapp, Cheping Ng, Marian DiFiglia, Leslie M. Thompson, and Paul J. Muchowski *J. Biol. Chem.*, May 2010; 285: 14777 - 14790.

**Effects of cholesterol on thermal stability of discoidal high density lipoproteins** Shobini Jayaraman, Sangeeta Benjwal, Donald L. Gantz, and Olga Gursky. *J. Lipid Res.*, Feb 2010; 51: 324 - 333.

**High Frequencies of Virus-Specific CD8+ T-Cell Precursors.** Mina O. Seedhom, Evan R. Jellison, Keith A. Daniels, and Raymond M. Welsh. *J. Virol.*, Dec 2009; 83: 12907 - 12916.

**Key role of T cell defects in age-related vulnerability to West Nile virus.** James D. Brien, Jennifer L. Uhrlaub, Alec Hirsch, Clayton Wiley, and Janko Nikolich-Zugich *J. Exp. Med.*, Nov 2009; 206: 2735 - 2745.

**Distinct Concentration-Dependent Effects of the Polo-like Kinase 1-Specific Inhibitor GSK461364A, Including Differential Effect on Apoptosis.** Aidan G. Gilmartin, Maureen R. Bleam, Mark C. Richter, Symon G. Erskine, Ryan G. Kruger, Lenore Madden, Daniel F. Hassler, Gary K. Smith, Richard R. Gontarek, Mary P. Courtney, David Sutton, Melody A. Diamond, Jeffrey R. Jackson, and Sylvie G. Laquerre. *Cancer Res.*, 2009; 69:69-6977.

**li-Key/HPV16 E7 hybrid peptide immunotherapy for HPV16+ cancers.** Minzhen Xu\*, Xueqing Lu, Margaret Sposato, John W. Zinckgraf, Shuzhen Wu, Eric von Hofe. *Vaccine*, July 2009; Volume 27, Issue 34, 4641–4647

**[Auger Radiation–Induced, Antisense-Mediated Cytotoxicity of Tumor Cells Using a 3-Component Streptavidin-Delivery Nanoparticle with <sup>111</sup>In.](#)** Xinrong Liu, Yi Wang, Kayoko Nakamura, Sumi Kawauchi, Ali Akalin, Dengfeng Cheng, Ling Chen, Mary Rusckowski, and Donald J. Hnatowich. *J. Nucl. Med.*, Apr 2009; 50: 582 - 590.

**[Antitumor Activity of GSK1904529A, a Small-molecule Inhibitor of the Insulin-like Growth Factor-I Receptor Tyrosine Kinase.](#)** Peter Sabbatini, Jason L. Rowand, Arthur Groy, Susan Korenchuk, Qi Liu, Charity Atkins, Melissa Dumble, Jingsong Yang, Kelly Anderson, Brian J. Wilson, Kyle A. Emmitte, Sridhar K. Rabindran, and Rakesh Kumar. *Clin. Cancer Res.*, Apr 2009; 10.1158/1078-0432.CCR-08-2530

**Atrial Natriuretic Peptide Frameshift Mutation in Familial Atrial Fibrillation.** Denice M. Hodgson-Zingman, M.D., Margaret L. Karst, B.A., Leonid V. Zingman, M.D., Denise M. Heublein, C.L.T., Dawood Darbar, M.D., Kathleen J. Herron, B.A., Jeffrey D. Ballew, M.S., Mariza de Andrade, Ph.D., John C. Burnett, Jr., M.D., and Timothy M. Olson, M.D. *N Engl J Med.*, 2008;359:158-65

**Effects of acyl chain length, unsaturation and pH on thermal stability of model discoidal high-density lipoproteins.** Madhumita Guha, Donald L. Gantz, and Olga Gursky. *J. Lipid Res.*, May 2008; 10.1194.

**COPI coatamer complex proteins facilitate the translocation of anthrax lethal factor across vesicular membranes *in vitro*.** Alfred G. Tamayo, Ajit Bharti, Carolina Trujillo, Robert Harrison, and John R. Murphy. *Proc. Natl. Acad. Sci. U.S.A.*, Apr 2008; 105: 5254 - 5259.

**Human Macrophage Inflammatory Protein 3 $\alpha$ : Protein and Peptide Nuclear Magnetic Resonance Solution Structures, Dimerization, Dynamics, and Anti-Infective Properties.** David I. Chan, Howard N. Hunter, Brian F. Tack, and Hans J. Vogel. *Antimicrob. Agents Chemother.*, Mar 2008; 52: 883 - 894.

**Characterization of an exosite binding inhibitor of matrix metalloproteinase 13.** Lata T. Gooljarsingh, Ami Lakdawala, Frank Coppo, Lusong Luo, Gregg B. Fields, Peter J. Tummino, and Richard R. Gontarek. *Protein Sci.*, Jan 2008; 17: 66 - 71.

**Sphingosine-1-phosphate induces the association of membrane-type 1 matrix metalloproteinase with p130Cas in endothelial cells.** Denis Gingras\*, Marisol Michaud, Genevieve Di Tomasso, Eric Be'liveau, Carine Nyalendo, Richard Be'liveau. *FEBS Letters* (2008) 582:399–404.

**GTP-independent rapid and slow endocytosis at a central synapse.** Jianhua Xu, Benjamin McNeil, Wei Wu, David Nees, Li Bai and Ling-Gang Wu. *Nature Neuroscience* (2008) 11:1

**Cell Culture and Xenograft-Bearing Animal Studies of Radiolabeled Antisense DNA–Carrier. Nanoparticles with Streptavidin as a Linker.** Kayoko Nakamura, Yi Wang, Xinrong Liu, Atsushi Kubo, and Donald J. Hnatowich. *J. Nucl. Med.*, Nov 2007; 48: 1845 - 1852.

**Novel C5a Agonist-Based Dendritic Cell Vaccine in a Murine Model of Melanoma.** Anthony A. Floreani, Sandra J. Gunselman, Arthur J. Heires, Ralph J. Hauke, Stefano Tarantolo, John D. Jackson. *Cell Cycle* (2007) 6:22, 2835-2839

**Protective capacity and epitope specificity of CD8+ T cells responding to lethal West Nile virus infection.** James D. Brien, Jennifer L. Uhrlaub and Janko Nikolich-Zugich. *Eur J Immunol.*, 2007 Jul;37(7):1855-63

**Cell Culture and Xenograft-Bearing Animal Studies of Radiolabeled Antisense DNA–Carrier Nanoparticles with Streptavidin as a Linker.** Kayoko Nakamura<sup>1</sup>, Yi Wang<sup>2</sup>, Xinrong Liu<sup>2</sup>, Atsushi Kubo<sup>1</sup>, and Donald J. Hnatowich<sup>1,2</sup>. *J Nucl Med.*, 2007; 48:1845–1852

**Narrowed TCR repertoire and viral escape as a consequence of heterologous immunity.** Markus Cornberg, Alex T. Chen, Lee A. Wilkinson, Michael A. Brehm, Sung-Kwon Kim, Claudia Calcagno, Dario Gherzi, Roberto Puzone, Franco Celada, Raymond M. Welsh, and Liisa K. Selin. *J Clin Invest.*, (2006) 116(5):1443-56 **Steady-state Kinetic Mechanism of PDK1.** Xinxin Gao and Thomas K. Harris. *J. Biol. Chem.*, Aug 2006; 281: 21670 - 21681.

**Intracellular Trafficking of KA2 Kainate Receptors Mediated by Interactions with Coatamer Protein Complex I (COPI) and 14-3-3 Chaperone Systems.** Pornpun Vivithanaporn, Sheng Yan, and Geoffrey T. Swanson. *J. Biol. Chem.*, Jun 2006; 281: 15475 - 15484.

**Megalin binds and internalizes angiotensin-(1-7).** Romer Gonzalez-Villalobos, R. Bryan Klassen, Patricia L. Allen, Kelly Johanson, Chasity B. Baker, Hiroyuki Kobori, L. G. Navar, and Timothy G. Hammond. *Am J Physiol Renal Physiol.* May 2006; 290(5): 1270–1275

**Mechanism of Substrate Recognition by Drug-Resistant Human Immunodeficiency Virus Type 1 Protease Variants Revealed by a Novel Structural Intermediate.** Moses Prabu-Jeyabalan, Ellen A. Nalivaika, Keith Romano, and Celia A. Schiffer. *J. Virol.*, Apr 2006; 80: 3607 – 3616.

**Th-Cytotoxic T-Lymphocyte Chimeric Epitopes Extended by *N*- $\epsilon$ -Palmitoyl Lysines Induce Herpes Simplex Virus Type 1-Specific Effector CD8 Tc1 Responses and Protect against Ocular Infection.** Xiuli Zhang, Annie Issagholian, Eric A. Berg, Jordan B. Fishman, Anthony B. Nesburn, and Lbachir BenMohamed. *J. Virol.*, (2005) 79(24):15289–15301

**Inhibition of colony-stimulating-factor-1 signaling *in vivo* with the orally bioavailable cFMS kinase inhibitor GW2580.** James G. Conway, et al. *Proc. Natl. Acad. Sci.*, Nov 2005; 102: 16078 - 16083.

**A conserved motif in transmembrane helix 1 of diphtheria toxin mediates catalytic domain delivery to the cytosol.** Ryan Ratts, Carolina Trujillo, Ajit Bharti, Johanna vanderSpek, Robert Harrison, and John R. Murphy. *Proc. Natl. Acad. Sci.*, Oct 2005; 102: 15635 - 15640.