

Friday Block Symposia

5. REGULATORS OF MUCOSAL AND REGIONAL IMMUNITY AND INFLAMMATION

Block Symposium

FRI. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *P.B. ERNST*

COCHAired: *P.N. BOYAKA*

- 2:45 A2A adenosine receptor mediates suppression in a mouse model of colitis. **C.C. Kurtz, M. Naganuma, M.S. Alam, S.H. Feldman, J.M. Linden and P.B. Ernst.** Univ. of Virginia. (39.1)
- 3:00 PI3Kgamma regulates mucosal immune responses to epicutaneous immunization with cholera toxin as adjuvant. **T.L. Papenfuss, A.R. Satoskar, B. Lu and P.N. Boyaka.** Ohio State Univ. and Children's Hosp., Harvard Med. Sch. (39.2)
- 3:15 The role of TL1A-DR3 TNF-family interactions in inflammatory bowel disease. **F. Meylan, Y-J. Song, I. Malm, K. Acharya, E. Kahle, I. Fuss, W. Strober, Y. Belkaid and R.M. Siegel.** NIAMS and NIAID, NIH. (39.3)
- 3:30 Antibody-mediated neutralization of RANKL prevents differentiation of M cells in the follicle-associated epithelium of Peyer's patches. **K.A. Knoop, N. Kumar, B.R. Butler, S. Sakthivel, R.T. Taylor, T. Nochi, H. Akiba, H. Yagita, H. Kiyono and I.R. Williams.** Emory Univ., Univ. of Tokyo and Juntendo Univ. Sch. of Med., Japan. (39.4)
- 3:45 A T cell-dependent mechanism for the induction of human mucosal homing IgA-secreting plasmablasts. **M. Dullaers, D. Li, Y. Xue, L. Ni, I. Gayet, J. Banchereau and S. Oh.** Baylor Inst. for Immunol. Res., Dallas. (39.5)
- 4:00 Pulmonary dendritic cells trans-present IL-15 to directly promote the survival of effector influenza virus-specific CD8 T cells in the lungs. **J. McGill and K.L. Legge.** Univ. of Iowa. (39.6)
- 4:15 Vitamin D is required for the development of functional CD8 $\alpha\alpha$ intestinal intraepithelial lymphocytes. **D.W. Bruce and M.T. Cantorna.** Penn State. (39.7)
- 4:30 CLEC2A is a novel skin-specific, stimulatory ligand of human NK cells. **A. Steinle, V. Stejfova, S. Kuttruff, B. Schitteck and J. Spreu.** Univ. of Tuebingen, Germany. (39.8)

6. B AND T CELL SIGNALING AND DEVELOPMENT

Block Symposium

FRI. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *N. BAUMGARTH*

COCHAired: *K. SAUER*

- 2:45 Extrafollicular foci-derived B cells provide long-lived mucosal immunity. **N. Baumgarth and K. Rothausler.** Univ. of California Davis. (84.16)
- 3:00 A conserved salt bridge in the G-loop of multiple protein kinases is essential for catalysis, in vivo Lyn function and prevention of autoimmune disease. **K. Sauer, J. Che, C.C. Lee, Y. Yang, A. Herman, Y. Jia, A. Velentza, J. Watson, L. Sternberg, S. Kim, N. Ziaee, A. Miller, C. Jackson, M. Young, S. Batalov, Y. Liu, M. Warmuth, T. Wiltshire, M.P. Cooke and R. Barouch-Bentov.** The Scripps Res. Inst. and GNF, San Diego. (84.17)
- 3:15 An allelic series of CD45 dosages uncouples basal and inducible TCR signaling during thymic development. **J. Zikherman, S. Watson, C. Jenne, W.C. Raschke, C. Goodnow and A. Weiss.** UCSF, Virogenics Inc., Del Mar, CA and Australian Natl. Univ. (84.13)
- 3:30 Mcl-1 promotes T cell survival independently of Bcl-2 through interaction with Bak. **A.D. Dunkle, I. Dzhagalov and Y-W. He.** Duke Univ. (84.19)
- 3:45 Phosphoinositide dependent kinase 1 maintains T-cell metabolism during proliferative stress. **A.N. Macintyre, A.P. Kelly and D.A. Cantrell.** Univ. of Dundee. (84.20)
- 4:00 Stim1 sets a threshold for activation of a pro-apoptotic Erk pathway in B cells. **A. Limnander and A. Weiss.** UCSF. (84.21)
- 4:15 Role of Itk in $\gamma\delta$ T cell development and function. **C.C. Yin, M. Felices, Y. Kosaka, J. Kang and L.J. Berg.** Univ. of Massachusetts Med. Sch. (84.22)
- 4:30 Visualizing interactions of antigen, B cells and FDC in vitro. **Y-A. Kim and M.C. Carroll.** Harvard Med. Sch. (84.23)

Saturday Block Symposia

23. GENETIC REGULATORY PROCESSES OF INFLAMMATION AND DISEASE

Block Symposium

SAT. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *J.M. BOSS*

COCHAired: *H.A. ARNETT*

- 8:00 mRNA stability influences the temporal order of inflammatory gene induction. **S. Hao and D. Baltimore.** Caltech. (136.1)
- 8:15 A novel non-Rel subunit of NF- κ B confers its regulatory specificity. **F. Wan and M.J. Lenardo.** NIAID, NIH. (136.2)
- 8:30 Recruitment of proteasome catalytic subunit dictates NF κ B-mediated transcriptional termination. **S.J. Cullen, S. Ponnappan and U. Ponnappan.** Univ. of Arkansas for Med. Sci. (136.3)
- 8:45 Children with autism spectrum disorders (ASD) characterized by frequent viral infection and subsequent loss of cognitive skills differ in mRNA expression of peripheral blood monocytes from other ASD children. **H. Jyonouchi, L. Geng, D. Streck and G. Toruner.** UMDNJ-New Jersey Med. Sch. (136.7)
- 9:00 Differential regulation of maturation genes in human dendritic cells stimulated with respiratory syncytial virus and TLR agonists. **L.E. Kallal and N.W. Lukacs.** Univ. of Michigan. (136.8)
- 9:15 microRNA expression profiling in multiple sclerosis and EAE. **S.S. Escobar, B. Kennedy, K. Kerkof, L. Peiser and H.A. Arnett.** Amgen, Seattle. (136.21)
- 9:30 Differentially expressed microRNAs in allergic asthma target genes underlying airway hyper-responsiveness and goblet cell hyperplasia. **S. Polikepahad, C.J. Creighton, H. Zhu, A. Harris, C. Coarfa, D. Berel, A. Milosavljevic, D.B. Corry and P.H. Gunaratne.** Baylor Col. of Med. and Univ. of Houston. (136.22)
- 9:45 Aberrant DNA demethylation of PD-1 during chronic viral infection. **B. Youngblood, K.J. Oestreich, S-J. Ha, J. Duraiswamy, R.S. Akondy, J.M. Boss and R. Ahmed.** Emory Univ. (136.16)

24. T AND B CELL HOMEOSTASIS

Block Symposium

SAT. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *K.A. HOGQUIST*

COCHAired: *P.J. FINK*

- 8:00 Post-thymic T cells undergo maturation in secondary lymphoid organs. **E. Houston and P.J. Fink.** Univ. of Washington. (82.11)
- 8:15 Naturally occurring memory (CD44hi) CD4 T cell responses are differentially regulated by the expression of programmed death-1 receptor. **S. Suvas, R. Channappanavar and B. Twardy.** Oakland Univ., MI. (82.4)
- 8:30 The effects of an aged microenvironment on mature B cell homing and distribution of CXCL13. **H.A. Minges Wols, J.A. Ippolito, S. Birjandi, N. Ziegler and P.L. Witte.** Columbia Col. Chicago and Loyola Univ. Med. Ctr. (82.13)
- 8:45 Non-apoptotic caspase-8 activation balances T lymphocyte autophagy. **B.D. Bell, S. Leverrier, B.M. Weist and C.M. Walsh.** Univ. of California Irvine. (82.14)
- 9:00 CD4⁺ recent thymic emigrants are biased to the TH2 effector lineage. **D.W. Hendricks, T. Boursalian and P.J. Fink.** Univ. of Washington. (82.15)
- 9:15 The role of Kruppel-like factor 2 in thymic emigration and trafficking of non-conventional T-cell lineages. **O.A. Odumade, M.A. Weinreich, K. Takada, T. McCaughy, C.M. Carlson, J. Lingrel, D. Elewaut, S.C. Jameson and K.A. Hogquist.** Univ. of Minnesota, Minneapolis, NCI, NIH, Beckman Coulter, Chaska, MN, Univ. of Cincinnati and Ghent Univ., Belgium. (82.16)
- 9:30 Foxo1 links trafficking and survival of naive T cells through regulation of L-selectin, Ccr7 and IL-7R α expression. **Y.M. Kerdiles, D.R. Beisner, R. Tinoco, A.S. Dejean, D.H. Castrillon, R.A. DePinho and S.M. Hedrick.** UCSD and Harvard Med. Sch., Dana-Farber Cancer Inst. (82.17)
- 9:45 Memory-like CD8⁺ T cells generated during homeostatic proliferation defer to antigen-experienced memory cells. **K.P. Cheung, E. Yang and A.W. Goldrath.** UCSD. (82.18)

25. T CELL ADHESION AND MIGRATION MECHANISMS

Block Symposium

SAT. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *K. MIKECZ*

COCHAired: *T.B. ISSEKUTZ*

- 8:00 CCL20 and beta-defensin induce arrest of human Th17 cells on inflamed endothelium under flow conditions. **H. Yssel, S. Ghannam, J-P. Giot, C. Jorgensen and J. Pène.** INSERM U844, Montpellier. (95.1)
- 8:15 Differing contributions of CCR4, E-selectin and VLA-4 to the migration of CD4 memory and activated CD4⁺CD25⁺ T cells to dermal inflammation. **T.B. Issekutz, A. Gehad, N. Al-Banna, I. Haidl and M. Vaci.** Dalhousie Univ., Canada. (95.2)
- 8:30 The role of the septin cytoskeleton in primary T cell migration. **J.K. Gilden and M.F. Krummel.** UCSF. (95.3)
- 8:45 Both CD62L (L-selectin) and β 7 integrin are required for the induction of chronic colitis. **D.V. Ostanin, R. Bao and M.B. Grisham.** LSU Hlth. Sci. Ctr., Shreveport. (95.4)
- 9:00 T cell migration to synovial joints is not necessary for the development of proteoglycan-induced arthritis. **C. Egelston, A. Angyal, T.T. Glant and K. Mikecz.** Rush Univ. Med. Ctr. (95.5)
- 9:15 Unexpected role of selectin ligands in T cell trafficking to the lung. **T.M. Onami and J.R. Harp.** Univ. of Tennessee, Knoxville. (95.6)
- 9:30 Lymphocyte subset recruitment during an immune response differs between peripheral and mucosal lymphoid tissues. **J.J. Graier, R.M. Conway and D.A. Steeber.** Univ. of Wisconsin-Milwaukee. (95.7)
- 9:45 Role of GIT2 in T cell migration and development. **H. Phee, M.N. Mollenauer and A. Weiss.** UCSF and UCSF/HHMI. (95.8)

26. MAST CELLS, BASOPHILS AND EOSINOPHILS IN DISEASE

Block Symposium

SAT. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *F.D. FINKELMAN*

COCHAired: *T.J. LIN*

- 8:00 Peanuts can contribute to anaphylactic shock by activating complement. **M. Khodoun, R. Strait, T. Orekov, S. Hogan, H. Karasuyama, D.R. Herbert, J. Köhl and F.D. Finkelman.** Cincinnati VA Med. Ctr., Univ. of Cincinnati Col. of Med., Cincinnati Children's Hosp. Med. Ctr., Tokyo Med. and Dent. Univ. Grad. Sch. and Univ. of Lübeck, Germany. (80.2)
- 8:15 Cigarette smoke suppresses in vitro allergic activation of mouse mast cells. **E. Mortaz, G. Folkerts, F. Engels, F.P. Nijkamp and F.A. Redegeld.** Utrecht Inst. for Pharmaceut. Sci., The Netherlands. (80.1)
- 8:30 Human embryonic stem cells as a source of human mast cells for studies of allergies and inflammatory diseases. **M. Kovarova, A.M. Latour and B.H. Koller.** Univ. of North Carolina at Chapel Hill. (80.3)
- 8:45 Basophils play an important role in the resolution of inflammation by inducing alternative activation of macrophages through Th2 cytokine release. **H. Karasuyama and K. Mukai.** Tokyo Med. and Dent. Univ. Grad. Sch. (80.4)
- 9:00 Antagonistic signaling by IL-4 and TGF β regulates mast cell function. **M. Macey and J.J. Ryan.** Virginia Commonwealth Univ. (80.5)
- 9:15 Nitration of aldolase: a critical post-translational modification in nitric oxide-mediated regulation of mast cell function. **Y. Sekar, T.C. Moon, C.M. Slupsky and A.D. Befus.** Univ. of Alberta. (80.6)
- 9:30 Basophil-specific and post-translational silencing of a major endoplasmic reticulum heat shock protein gp96 (grp94, HSP90b1) for TLR and integrin. **B. Liu and Z. Li.** Univ. of Connecticut Hlth. Ctr. (80.7)
- 9:45 Imbalance of effector and regulatory T cells in the pathogenesis of experimental eosinophilic esophagitis. **A. Mishra and M. Rothenberg.** Cincinnati Children's Hosp. Med. Ctr. (80.8)

27. MODELS OF ALLERGY

Block Symposium

SAT. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *P.S. FOSTER*

COCHAired: *S.F. ZIEGLER*

- 10:15 NKT cells are not required for development of allergic airway disease in allergen-immunized mice. **C. Perkins, T. Orekov, N. Yanase, J. Mattner and F.D. Finkelman.** Cincinnati VA Med. Ctr., Cincinnati Children's Hosp. Med. Ctr. and Univ. of Cincinnati Col. of Med. (79.1)
- 10:30 Alternatively activated macrophages participate in the recruitment of eosinophils to the lung in a murine model of allergic lung inflammation. **A.Q. Ford, E. Smith, N. Noben-Trauth and A.D. Keegan.** Univ. of Maryland Sch. of Med. and Univ. of Maryland College Park, Rockville. (79.2)
- 10:45 A critical role for c-kit on dendritic cells in regulating in T helper cell differentiation and allergic asthma. **N. Krishnamoorthy, T. Oriss, M. Fei, M. Paglia, M. Yarlagadda, B. Vanhaesebroeck, A. Ray and P. Ray.** Univ. of Pittsburgh and Barts and London Sch. of Med. and Dent. (79.3)
- 11:00 Thymic stromal lymphopoietin modulates the balance between Th1 and Th2 responses in the skin. **R.P. Larson and S.F. Ziegler.** Univ. of Washington and Benaroya Res. Inst., Seattle. (79.4)
- 11:15 Chlamydial respiratory infection predisposes to neutrophil dominated allergic airways disease. **J.C. Horvat, M.R. Starkey, K.W. Beagley, P.G. Gibson, P.S. Foster and P.M. Hansbro.** Univ. of Newcastle, Australia. (79.5)
- 11:30 Coordinate posttranscriptional regulation of asthma genes by the RNA binding protein HuR. **M.M. Gubin, J.D. Hollingsworth, R. Calaluca, J.D. Magee, D.A. Schwartz and U. Atasoy.** Univ. of Missouri-Columbia, Duke Univ. and Natl. Jewish. (79.6)
- 11:45 Epicutaneous antigen challenge of orally sensitized mice elicits allergic dermatitis by redirecting α 4 β 7 gut homing T cells to the

- skin. **M.K. Oyoshi, A. ElKhal, J.E. Scott, R. He, M. Wurbel, J. Campbell and R.S. Geha.** Children's Hosp. and Brigham and Women's Hosp., Harvard Med. Sch. (79.7)
- 12:00 **ROG, repressor of GATA, regulates Th2-driven allergic airway inflammation and airway hyperresponsiveness. T. Nakayama, K. Hirahara and M. Yamasahita.** Chiba Univ., Japan. (79.8)

29. NEW APPROACHES TO THERAPY IN ALLERGIC DISEASE

Block Symposium

SAT. 12:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAIRED: *D.B. CORRY*

COCHAIRED: *N.W. LUKACS*

- 12:30 Role of stem cell factor and bone marrow-derived fibroblasts in airway remodeling. **V. Dolgachev, M.R. Ullenbruch, N.W. Lukacs and S.H. Phan.** Univ. of Michigan. (140.1)
- 12:45 *Streptococcus pneumoniae* vaccine, Prevenar, utilizes Tregs to suppress asthma. **P.M. Hansbro, A.N. Thorburn, P.S. Foster and P.G. Gibson.** Univ. of Newcastle, Australia. (140.2)
- 1:00 AIMP1 as a negative regulator of airway inflammation via suppression of Th2 responses. **H.J. Hong, M.S. Kim, E. Kim and T.S. Kim.** Korea Univ. (140.3)
- 1:15 Intranasal CpG therapy attenuated experimental fungal asthma in a TLR9-dependent and independent manner. **H. Ramaprakash and C.M. Hogaboam.** Univ. of Michigan. (140.4)
- 1:30 Divergent roles for airway epithelial MMP7 and retinoic acid in experimental asthma. **S. Goswami, P. Angkasekwinai, M. Shan, K.J. Greenlee, W.T. Barranco, S. Polikepahad, A. Seryshev, S. Sur, P. Woodruff, C. Dong, D.B. Corry and F. Kheradmand.** Baylor Col. of Med., Univ. of Texas M.D. Anderson Cancer Ctr., North Dakota State Univ., Univ. of Texas Med. Branch and UCSF. (140.5)
- 1:45 Antigen-specific immunotherapy inhibited Th2 via GATA-3 and Th17 cells in the absence of T-bet in an allergic asthma model. **N. Zhivkova, R. Karwot, J. Maxeiner, K. Soó-Becker, H-A. Lehr and F. Susetta.** Univ. of Mainz Med. Clin. and Ctr. Hosp. Univ. Vaudois, Switzerland. (140.6)
- 2:00 Reduction of serum IgE by depletion of the IgE B cell lineage — a novel approach for the treatment of allergic diseases. **L.C. Wu, H.D. Brightbill, S. Jeet, Z. Lin, D. Yan, M. Zhou, M. Tan, A. Nguyen, S. Yeh, D. Delarosa, S.R. Leong, T. Wong, Y. Chen, J. Jackman, M.S. Dennis, A. Chuntharapai, L. DeForge, Y.G. Meng, M. Xu, W.P. Lee, C.J. Refino and M. Balazs.** Genentech Inc. (140.7)
- 2:15 Fullerene C₇₀ derivatives inhibit eosinophilia associated with chronic asthma. **S.K. Norton, D.H. Conrad and C.L. Kepley.** Virginia Commonwealth Univ. and Luna Innovations, Danville, VA. (140.8)

30. IMMUNITY TO INFECTION

Block Symposium

SAT. 12:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6E

CHAIRED: *D. JANKOVIC*

COCHAIRED: *L. RAMAKRISHNAN*

- 12:30 NK cells inability to produce IFN gamma in MyD88^{-/-} mice contributes to the delayed clearance of *Chlamydia muridarum* primary genital infection. **U.M. Nagarajan, J.D. Sikes, D. Prantner, A. Goodwin and T. Darville.** Univ. of Arkansas for Med. Sci. and Children's Hosp. of Pittsburgh, Univ. of Pittsburgh Med. Ctr. (133.2)
- 12:45 Innate immunity to tuberculosis: a forward genetic approach. **D.M. Tobin, J.P. Ray, C. Moens and L. Ramakrishnan.** Univ. of Washington and Fred Hutchinson Cancer Res. Ctr. (133.15)
- 1:00 The major Th2 polarizing component in schistosome eggs is a T2 ribonuclease (omega-1) that inhibits dendritic-T cell interaction. **D. Jankovic, J. Andersen, S. Steinfeld, J.L. Cannons, P.L. Schwartzberg and A. Sher.** NIAID and NHGRI, NIH. (133.23)
- 1:15 Macrophage phagocytosis and lysozyme-based digestion of peptidoglycan are required for IL-1 β production in response to *S. aureus*. **D.M. Underhill, T. Shimada, B.G. Park, H.S. Goodridge, A.J. Wolf, C. Becker, C. Reyes, F. Götz and G.Y. Liu.** Cedars-Sinai Med. Ctr./UCLA and Univ. of Tübingen, Germany. (134.38)
- 1:30 The roles of type I IFN receptor and neutrophils in regulating innate immunity to *Leishmania* parasites. **L. Xin, D.A. Vargas Inchaustegui, S.S. Raimer, B.C. Kelly, J. Hu, L. Zhu, J. Sun and L. Soong.** Univ. of Texas Med. Branch. (133.26)
- 1:45 Feedback inhibition of macrophage responses to IFN γ during bacterial infection is mediated by IFN $\alpha\beta$. **L.L. Lenz, M. Rayamajhi, K. Andreasen and J. Humann.** Natl. Jewish Hlth. and Univ. of Colorado Denver. (133.32)
- 2:00 Interleukin-23 is required for protection against *Listeria monocytogenes*. **K.D. Meeks, A.N. Sieve, J.K. Kolls and R.E. Berg.** Univ. of North Texas Hlth. Sci. Ctr., Children's Hosp. of Pittsburgh and Univ. of Pittsburgh. (133.24)

31. VACCINES

Block Symposium

SAT. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *D.M. KOELLE*

COCHAired: *J.E. McELHANEY*

- 1:30 Protection from acute viral disease by memory CD8⁺ T cells of a single specificity. **S.S. Chhann and L. Sigal.** Fox Chase Cancer Ctr. and Thomas Jefferson Univ. (132.23)
- 1:45 Multiple antigen encounters decrease memory CD8 T cell-mediated protection against chronic viral infection. **J.C. Nolz and J.T. Harty.** Univ. of Iowa. (132.8)
- 2:00 Memory B cells are required to maintain long-lived plasma cells in mice following viral infections. **W.A. Langley, S.N. Mueller and R. Ahmed.** Emory Univ. Sch. of Med. (132.16)
- 2:15 Th17 cells are not required for host defense against murine disseminated candidiasis, but are required for vaccine-mediated protection. **L. Lin, A.S. Ibrahim, V. Avanesian, X. Xu, J. Farber, Y. Fu, B. Baquir and B. Spellberg.** Los Angeles Biomed. Res. Inst. at Harbor-UCLA Med. Ctr. and NIAID, NIH. (132.10)
- 2:30 Vaccinia-specific CD4 T-cell responses in humans are predominantly restricted by HLA DR. **L. Jing, S. Mayo McCaughey, D.H. Davies, T.M. Chong, P.L. Felgner, W.W. Kwok, C.B. Wilson and D.M. Koelle.** Univ. of Washington, Univ. of California Irvine and Benaroya Res. Inst., Seattle. (132.22)
- 2:45 Characterization of the anti-lethal factor antibody response in anthrax vaccine adsorbed individuals. **S.R. Crowe, R.J.M. Engler, J.D. Ballard, J.B. Harley, A.D. Farris and J.A. James.** Oklahoma Med. Res. Fndn., Walter Reed Army Med. Ctr. and Univ. of Oklahoma Hlth. Sci. Ctr. (132.15)
- 3:00 Post-exposure vaccination against influenza. **B.E. Barefoot, C. Sample and E. Ramsburg.** Duke Univ. (132.4)
- 3:15 Pre-clinical testing of T cell responses to influenza vaccine/adjuvant combinations in older adults. **K. Ma, L. Haynes, J. Wilschut and J.E. McElhaney.** Univ. of British Columbia, Trudeau Inst., Saranac Lake, NY, Univ. of Groningen, The Netherlands and Univ. of Connecticut Hlth. Ctr. (132.5)

32. CELL SIGNALING IN ALLERGIC DISEASE

Block Symposium

SAT. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *J.J. RYAN*

COCHAired: *S. FINOTTO*

- 2:45 The interplay of CD23 and ADAM10 and its role in IgE synthesis. **J. Mathews, B-H. Chen, N. Saha and D. Conrad.** Virginia Commonwealth Univ., Kaohsiung Med. Univ., Taiwan, Mem. Sloan-Kettering Ctr. (139.1)
- 3:00 IgE signaling selectively suppresses FcεRI beta chain expression. **J.J. Ryan, B. Barnstein and J. Brenzovich.** Virginia Commonwealth Univ. (139.2)
- 3:15 Egr1-Rcan1 axis serves as a molecular switch from activation to inhibition in IgE-mediated signalling. **T-J. Lin, Y.J. Yang, J.D. Molkentin and J.N. Berman.** IWK Hlth. Ctr., Dalhousie Univ., Canada and Univ. of Cincinnati. (139.3)
- 3:30 Opposing roles for Lyn and Fyn kinases in mast cell IgG receptor signaling. **Y. Falanga and J.J. Ryan.** Virginia Commonwealth Univ. (139.4)
- 3:45 Adenosine receptor A2a inhibits complement-mediated activation of human mast cells by activating Gαs-proteins. **M. Kulka, C. Sheen, B.P. Tancowny and R.P. Schleimer.** Natl. Res. Council, Charlottetown, Canada and Northwestern Univ., Chicago. (139.5)
- 4:00 High resolution imaging methods to probe FcεRI membrane organization and behavior. **B.S. Wilson, D. Lidke, K. Lidke, N. Andrews, R. Murphy and J.M. Oliver.** Univ. of New Mexico and Univ. of Colorado Denver, Aurora. (139.6)
- 4:15 The peptidyl-prolyl isomerase Pin1 suppresses Bax activation and mitochondrial targeting in human eosinophils. **Z-J. Shen and J.S. Malter.** Univ. of Wisconsin-Madison. (139.7)
- 4:30 Dissection of the SHP-1 functions in FcεRI signaling. **K. Mizuno, K. Nakata and H. Yakura.** Tokyo Metro. Inst. for Neurosci. (139.8)

Sunday Block Symposia

66. EFFECTOR MECHANISMS IN AUTOIMMUNITY

Block Symposium

SUN. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *R.M. SIEGEL*

COCHAired: *J.M. GOVERMAN*

- 8:00 Human keratinocytes release and respond to danger signals in cutaneous lupus erythematosus. **M. Wittmann, D. Wang, B. Eiz-Vesper and T. Werfel.** Univ. of Leeds and Hannover Med. Sch. (137.33)

- 8:15 A novel pathogenic mechanism of the ER chaperone BiP/Grp78 response in rheumatoid synoviocytes. **W-U. Kim, S-A. Yoo, J-S. Kong, H-J. Yoon, Y-J. Park and C-S. Cho.** St. Vincent's Hosp., Suwon, Catholic Res. Inst. of Med. Sci., Seoul and St. Mary's Hosp., Seoul. (137.27)
- 8:30 Cbl-b^{-/-} T cells are resistant to Treg-expressed TGF-beta: a unifying mechanism for resistance to regulation and autoimmunity. **C. O'Connor, W.J. Housley and R.B. Clark.** Univ. of Connecticut Sch. of Med. (137.18)
- 8:45 Th17 cells mediate sustained autoimmune inflammation and are highly resistant to restimulation-induced cell death. **G. Shi, M. Ramaswamy, B.P. Vistica, C. Tan, E.F. Wawrousek, R.M. Siegel and I. Gery.** NEI and NIAMS, NIH. (137.17)
- 9:00 IL-2 mediated regulation of CD103 expression on CD4⁺ T cells and its role in cutaneous and mucosal inflammation in scurfy mice. **R. Sharma, S.S. Sung, C.E. Abaya, A.C-Y. Ju, S.M. Fu and S.T. Ju.** Univ. of Virginia. (137.15)
- 9:15 The role of MR-1 restricted MAIT cells in murine models of arthritis. **S. Miyake, R. Tajima, Y. Miyazaki, D. Ichikawa, A. Chiba and T. Yamamura.** Natl. Inst. of Neurosci., Tokyo. (137.28)
- 9:30 Innate immune CD11b⁺Gr-1⁺ cells, myeloid-derived suppressor cells, influence the adaptive immune response during demyelinating disease. **J.K. Olson and J.L. Bowen.** Univ. of Wisconsin-Madison. (137.6)
- 9:45 Two populations of alternatively activated M2 macrophages (TLR4⁺ versus Tim-3⁺) regulate inflammation and fibrosis in the heart during coxsackievirus-induced myocarditis. **D. Fairweather, S. Frisancho-Kiss, M.J. Coronado, J.A. Frisancho, D. Cihakova and N.R. Rose.** Johns Hopkins Univ. (137.20)

67. TUMOR IMMUNE ESCAPE

Block Symposium

SUN. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *N. SCHOLLER*

COCHAired: *T.J. CURIEL*

- 8:00 Tumor antigen cross-presentation by tumor dendritic cells is blocked at a post-processing stage but can be reversed by selected pro-apoptotic agents. **B.W.S. Robinson, A.M. McDonnell, M. Brown, A.C. Prosser, I. van Bruggen and A.J. Currie.** Univ. of Western Australia and Natl. Ctr. for Asbestos Related Dis., Perth, Australia. (88.23)
- 8:15 Genetic approach to study complement role in ovarian cancer. **S. Nunez-Cruz, D. Connolly, A. Roberts, M. Markiewski, L.D. John, G. Coukos and N. Scholler.** Univ. of Pennsylvania and Fox Chase Cancer Ctr. (88.24)
- 8:30 The function of cancer-induced myeloid-derived cells. **T. Shin, K. Tomihara, M. Guo, B. Zhang and T.J. Curiel.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (88.25)
- 8:45 Mechanism of MDSC induced T cell tolerance in cancer. **S. Nagaraj, A. Schrum, H-I. Cho, E. Celis and D.I. Gabrilovich.** H. Lee Moffitt Cancer Ctr., Tampa and Mayo Clin. (88.26)
- 9:00 B cells are required for T cell activation during tumor immunity. **D.J. DiLillo and T.F. Tedder.** Duke Univ. Med. Ctr. (88.27)
- 9:15 Immune contexture and cancer prognosis. **J. Galon, M. Tosolini, A. Kirilovsky, M. Camus, B. Mlecnik, G. Bindea, Z. Trajanoski, P. Bruneval, A. Berger, W-H. Fridman and F. Pages.** Cordeliers Res. Ctr., INSERM, Paris, Inst. for Genomics and Bioinformat., Graz, Austria and AP-HP, Paris. (88.28)
- 9:30 Anti-MUC1 antibody responses in endometriosis and ovarian cancer in humans and preclinical MUC1 transgenic models. **R.A. Budiu, R.P. Edwards and A.M. Vlad.** Univ. of Pittsburgh. (88.29)
- 9:45 The role of IL-6 and IL-23 in colitis-associated cancer. **S. Grivennikov, D. Mucida, J. Terzic, S. Rose-John, L. Eckmann, H. Cheroutre and M. Karin.** UCSD, La Jolla Inst. for Allergy & Immunol. and Christian Albrechts Univ. Kiel, Germany. (88.30)

68. REGULATORY CELLS IN TRANSPLANTATION

Block Symposium

SUN. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *G. RAIMONDI*

COCHAired: *S.M. METCALFE*

- 8:00 CCL22 protection of islet allografts in diabetes. **J. Montane, L. Bischoff, G. Soukhatcheva, R. Tan and C.B. Verchere.** Child and Family Res. Inst., Vancouver. (141.32)
- 8:15 Quiescent recipient splenic dendritic cells (DC) re-process therapeutic DC into alloantigen for presentation to and down-regulation of anti-donor T cells to prolong allograft survival. **S.J. Divito, A. Montecalvo, Z. Wang, W.J. Shufesky, G. Erdos, A.T. Larregina and A.E. Morelli.** Univ. of Pittsburgh. (141.31)
- 8:30 Combined mTOR inhibition and post-transplant infusion of alloantigen-specific Treg promotes long-term graft survival in otherwise unmanipulated hosts. **G. Raimondi, T.L. Sumpter, B.M. Matta, N. Corbitt, D. Tokita, Z. Wang and A.W. Thomson.** Univ. of Pittsburgh. (141.42)
- 8:45 The PD-L1 signal is important to liver dendritic cells in induction of Foxp3⁺CD4⁺CD25⁺ Treg and liver transplant tolerance. **W. Li, R. Bakthavatsalam, Z. Meng, J.D. Perkins, Y. Latchman and J.D. Reyes.** Univ. of Washington and Puget Sound Blood Ctr., Seattle. (141.33)
- 9:00 Differences in Bcl-2 expression by T cell subsets alter their balance after in vivo irradiation to favor regulatory NKT cells and CD4⁺ CD25⁺ T cells in wild type but not p53^{-/-} mice. **Z. Yao, J.C. Jones, Y. Liu and S. Strober.** Stanford Univ. Sch. of Med. (141.19)

- 9:15 Leukaemia inhibitory factor is a Treg cytokine. **S.M. Metcalfe, W. Gao, P. Muthukumarana, Q. Zhou, T. Fahmy and T.B. Strom.** Univ. of Cambridge, Harvard Univ. and Yale Univ. (141.35)
- 9:30 Contact-dependent suppression pathways in non-human primate Tregs expanded ex vivo in the presence of rapamycin. **J.L. Johnson, E.A. Hennessy, A. Pahuja, M. Graham, B. Blazar, B. Hering and P. Bansal-Pakala.** Univ. of Minnesota, Minneapolis. (141.36)
- 9:45 Epstein-Barr virus latent membrane protein 1 modulates host microRNAs in B cell lymphomas. **A. Harris, S. Lambert, S.M. Krams and O.M. Martinez.** Stanford Univ. Sch. of Med. (141.37)

28. BONE MARROW STEM CELLS AND LYMPHOPOIESIS

Block Symposium

SUN. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *K.J. PAYNE*

COCHAired: *V.S. SHAPIRO*

- 10:15 Severe block in hematopoiesis in the absence of NKAP. **A.G. Pajeroski, M.J. Shapiro and V.S. Shapiro.** Univ. of Pennsylvania and Mayo Clin. (138.2)
- 10:30 Hem-1 is essential for hematopoietic cell development and function by regulating the actin cytoskeleton. **H. Park, K. Staehling-Hampton, M.W. Appleby, M.E. Brunkow, T. Habib, F. Ramsdell, D. Liggitt, B. Freie, M. Tsang, M. Chan, G. Carlson, S. Friend and B. Iritani.** Univ. of Washington, Celltech R&D Inc., Bothell, Fred Hutchinson Cancer Res. Ctr., McLaughlin Res. Inst., South Great Falls, MT and Amnis Inc, Seattle. (138.8)
- 10:45 The transcription factor E47 controls the cell cycle quiescence and development of multipotent hematopoietic progenitors. **Q. Yang, L. Kardava, A. St. Leger, K. Martincic, B. Varnum-Finney, I.D. Bernstein, C. Milcarek and L. Borghesi.** Univ. of Pittsburgh and Fred Hutchinson Cancer Ctr. (138.3)
- 11:00 Novel mouse NK progenitors in lymph node: developmental origin and functional contributions. **C. Luther, L. Senger and F. Takei.** BC Cancer Agcy. and Univ. of British Columbia. (138.1)
- 11:15 ADAM10 regulates B cell development and immunoglobulin production. **D.R. Gibb, M. El Shikh, D-J. Kang, R. El Sayed, H. Crawford, J.G. Tew and D.H. Conrad.** Virginia Commonwealth Univ. and Stony Brook Univ. (138.6)
- 11:30 Distinct lymphoid and myeloid progenitors seed the thymus and give rise to all thymic lineages. **T. Serwold, L.I.R. Ehrlich and I.L. Weissman.** Stanford Univ. (138.7)
- 11:45 V_H gene usage and restricted B cell development. **G.R. Robbins and K.L. Knight.** Loyola Univ. Chicago, Maywood. (138.4)
- 12:00 Human cord blood, but not adult bone marrow, gives rise to IL-7-independent B cell production. **K.J. Payne, I. Baez, T-A. Milford, A. Benitez, N. Galloway, J.W. Rogerio, E. Sahakian, N.R. Wall, S. Dovat and Y.K. Parrish.** Loma Linda Univ., Children's Hosp. Los Angeles and Univ. of Wisconsin-Madison. (138.5)

70. TUMOR VACCINE AND IMMUNOTHERAPY

Block Symposium

SUN. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *J.L. RILEY*

COCHAired: *C. YEE*

- 10:15 Adoptive therapy of a fast growing tumor with reactivated memory T cells combined with anti-4-1BB eliminates tumors through effects of anti-4-1BB on transferred but not host cells. **G.H.Y. Lin, Y. Liu, T. Ambagala, B.S. Kwon and T.H. Watts.** Univ. of Toronto and LSU Hlth. Sci. Ctr., New Orleans. (41.37)
- 10:30 Differential expression of CD4⁺ Treg cell subpopulations among ovarian cancer patients following autologous MUC1-specific Th1 effector cell immunotherapy. **M.J. Dobrzanski, K. Rewers-Felkins, K.A. Samad, W. Robinson and S.E. Wright.** Texas Tech Univ. Sch. of Med., Harrington Cancer Ctr. and VA Med. Ctr., Amarillo. (41.38)
- 10:45 Development of a transgenic mouse with high affinity TCR reactive to human tyrosinase epitope. **S. Mehrotra, M. Li, G.E. Lyons, N. Spivey, T.M. da Palma, O.S. Naga, H.R. Norell, C.M. Diaz-Montero, D.J. Cole and M.I. Nishimura.** Med. Univ. of South Carolina and Univ. of Miami. (41.39)
- 11:00 Vaccination with mimotopes prevents tumor growth by enhancing the activation of T cells that respond to natural tumor antigens. **J.E. Slansky, K.R. Jordan and J.W. Kappler.** Univ. of Colorado Denver and HHMI/ Natl. Jewish Hlth. (41.40)
- 11:15 Autophagosome vaccine cross-protects and breaks tumor immunology paradigm: a p62-dependent mechanism? **C.G. Twitty, S.M. Jensen, H-M. Hu and B.A. Fox.** Oregon Hlth. & Sci. Univ. and Earle A. Chiles Res. Inst., Portland. (41.41)
- 11:30 Loss of pre-existing tumor-specific T cells and increase in regulatory T cells after peptide-vaccination in combination with PADRE, CpG 7909, and Montanide ISA51. **J. Kuball, K. deBoer, E. Wagner, M. Wattad, E. Antunes, C. Lotz, S. vanDorp, S. Hol, C. Huber, P.D. Greenberg, W. Heit and M. Theobald.** UMC Utrecht, The Netherlands, Univ. of Mainz, 'Klin Essen Sud, Germany and Univ. of Washington. (41.42)
- 11:45 Synergy of radiation and immune therapy in tumor eradication. **M.G. Ruocco, N. Kawashima, J. Huang, S.C. Formenti, M.L. Dustin and S. Demaria.** NYU Sch. of Med. (41.27)
- 12:00 Increased lymphopenia results in higher percentages of FoxP3⁺ T cells in patients reconstituted by PBMC adoptive transfer and vaccinated. **J.A. Thompson, I. Assmann, D. Haley, T.L. Moudgil, S.M. Jensen, C.H. Poehlein, H-M. Hu, E.B. Walker, N.**

Sacks, K. Hege, B. Curti, W.J. Urba and B.A. Fox. Earle A. Chiles Res. Inst., Portland and CellGenesys Inc., South San Francisco. (41.36)

71. REGULATION OF B CELL RESPONSES

Block Symposium

SUN. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6A

CHAired: *S. BONDADA*

COCHAired: *K.P. LEE*

- 10:15 Orchestration of B cell function by the ERM protein ezrin. **N. Gupta, N. Bagheri and N. Parameswaran.** Cleveland Clin. (34.2)
- 10:30 Critical role of CIN85 in Cbl-mediated regulation of B cell function after antigen receptor stimulation. **H. Niuro, S. Jabbarzadeh Tabrizi, K. Aizawa, Y. Inoue, Y. Arinobu and K. Akashi.** Kyushu Univ., Japan. (34.11)
- 10:45 CD19-dependent signaling pathways activated by IgM ligation, CD19 ligation or simultaneous IgM and CD19 ligation demonstrate differential requirements for Lyn and Syk kinase activities. **E.I. Kountikov, J.C. Poe and T.F. Tedder.** Duke Univ. Med. Ctr. (34.17)
- 11:00 Autoregulatory B-1 cells. **V.J. Sindhava and S. Bondada.** Univ. of Kentucky. (34.13)
- 11:15 Cytokine-secreting follicular T cells shape the antibody repertoire. **R.L. Reinhardt, H-E. Liang and R.M. Locksley.** UCSF. (34.19)
- 11:30 Direct interaction with dendritic cells through CD28-CD80/CD86 supports plasma cell survival. **J.R. Nair, L.M. Carlson, C. Rozanski, L.H. Boise, A. Chanan-Khan and K.P. Lee.** Roswell Park Cancer Inst. and Univ. of Miami. (34.9)
- 11:45 CD30/CD30L interactions promote class-switched antibody responses to T-dependent antigens. **C.R. Willis, Y-L. Hu, A. Leith and J.B. Rottman.** Amgen Inc., Seattle, Thousand Oaks and Cambridge, MA. (34.3)
- 12:00 CD137 promotes proliferation and survival of human B cell. **X. Zhang, C.J. Voskens, M. Sallin and S.E. Strome.** Univ. of Maryland Sch. of Med. and Univ. of Maryland Dent. Sch. (34.14)

72. MECHANISMS OF GRAFT REJECTION AND GVHD

Block Symposium

SUN. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *D. ZENG*

COCHAired: *M. SYKES*

- 10:15 The T cell cytolytic molecules FasL and TRAIL are required for thymic GVHD. **S.X. Lu, I-K. Na, G.L. Goldberg, C.G. King, M. Smith, D. Suh, U. Rao, N. Yim, A.M. Holland, O. Penack, R.R. Jenq, A. Ghosh, A.N. Houghton and M.R.M. van den Brink.** Mem. Sloan-Kettering Cancer Ctr. (141.14)
- 10:30 Reciprocal differentiation and tissue-specific pathogenesis of Th1, Th2, and Th17 cells in graft versus host disease. **T. Yi, Y. Chen, L. Wang, G. Du, D. Huang, D. Zhao, J. Young, I. Todorov, C. Lieping, Y. Iwakura, F. Stephen and D. Zeng.** City of Hope Natl. Med. Ctr., Johns Hopkins Univ. and Univ. of Tokyo. (141.13)
- 10:45 Rare dual TCR T cells contribute substantially to alloreactivity. **G.P. Morris and P.M. Allen.** Washington Univ. Sch. of Med. (141.2)
- 11:00 Paracrine generation of NO by bystander human CD8 T cells augments allogeneic responses by inhibiting cytokine deprivation-induced cell death. **J.C. Choy and J.S. Pober.** Simon Fraser Univ., Canada and Yale Univ. Sch. of Med. (141.3)
- 11:15 CD40L-specific mAb mediates its tolerogenic effects through engagement of FcγRIIB, not via depletion of activated T cells. **C.L. Lucas, T. Fehr, F. Haspot and M. Sykes.** Massachusetts Gen. Hosp., Harvard Med. Sch. (141.17)
- 11:30 Preformed alloantibodies prevent the induction of allograft tolerance by enhancing alloreactive T cell priming. **A.M. Troutman and A.S. Chong.** Univ. of Chicago. (141.4)
- 11:45 Compensation for PKC-θ deficiency in alloimmune responses. **D.P. Yin, L.L. Ma, X. Gao, P. Williams and R. Chari.** Vanderbilt Univ. Med. Ctr. (141.6)
- 12:00 Lack of negative selection of CD4 T cells by bone marrow-derived cells causes fatal autoimmunity manifested as acute GVHD. **L.C. Chen, X. Guo, P.E. Jensen and X. Chen.** Georgia Tech and Univ. of Utah Sch. of Med. (141.16)

73. SPATIAL-TEMPORAL ASPECTS OF T CELL RECOGNITION

Block Symposium

SUN. 12:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6E

CHAired: *M.L. DUSTIN*

COCHAired: *A.K. CHAKRABORTY*

- 12:30 Calculations show that T cell antigen discrimination requires multiple localized binding events. **O. Dushek, M. Aleksic, A. van der Merwe and D. Coombs.** Univ. of Oxford and Univ. of British Columbia. (35.3)

- 12:00 Role of CD4 and CD8 coreceptors in the membrane proximal signaling and signal enhancement by self-peptide. **M. Artomov and A.K. Chakraborty.** MIT. (35.15)
- 1:00 Physical forces can trigger T cell receptor signaling. **S.R. Roffler, Y-C. Li, B-M. Chen, P-C. Wu, T-L. Cheng, Y-C. Liao, L-S. Kao, M-H. Tao and A. Lieber.** Inst. of Biomed. Sci., Acad. Sinica, Taipei, Natl. Yang-Ming Univ. and Kaohsiung Med. Univ., Taiwan and Univ. of Washington. (35.10)
- 1:15 Cytolytic synapses control effectiveness of target cell destruction by CTL. **Y. Sykulev, A.M. Beal, N. Anikeeva, R. Varma, T.O. Cameron, P. Norris and M.L. Dustin.** Thomas Jefferson Univ., NYU and UCSF. (35.17)
- 1:30 pMHC ligand anchored on a plastic surface via a 61 nm flexible poly(ethylene glycol) linker triggers the TCR: implications for the mechanism of TCR signal initiation. **Z. Ma, P. Janmey and T.H. Finkel.** Children's Hosp. of Philadelphia and Univ. of Pennsylvania. (35.18)
- 1:45 Cytoskeleton dependent T cell polarization modulates calcium signals. **C. Junker, A. Quintana, C. Kummerow, C. Schwindling and M. Hoth.** Saarland Univ., Germany. (35.31)
- 2:00 CD3 molecules in a conformational equilibrium that is altered by TCR engagement. **D. Gil, T. Kruger and J. de la Cruz.** Mayo Clin. Col. of Med. (35.41)
- 2:15 Biochemical evidence for bivalent T cell antigen receptor expression in primary T cells. **A.G. Schrum, L.A. Turka and E. Palmer.** Mayo Clin. Col. of Med., Univ. of Pennsylvania Sch. of Med. and Univ. Hosp.-Basel. (35.42)

69. GENETIC BASIS OF AUTOIMMUNE DISEASE

Block Symposium

SUN. 1:30 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 605

CHAired: *C. MOHAN*

COCHAired: *M. HERMISTON*

- 1:30 PTPN22 deficiency cooperates with the CD45 E613R wedge allele to break tolerance on a non-autoimmune background. **J. Zikherman, M. Hermiston, D. Steiner, K. Hasegawa and A. Chan.** UCSF, Kin-iKyo Chuo Hosp., Higashiku, Japan and Genentech Inc. (49.18)
- 1:45 The soluble CTLA-4 splice variant affects the function of CD4⁺CD25⁺ regulatory T cells. **S. Kissler, K. Fischer, P. Zheng, D. Rainbow and L. Wicker.** Univ. of Wurzburg and Univ. of Cambridge. (49.10)
- 2:00 DR1001 presents altered-self peptides by accepting citrulline in its binding pockets. **E.A. James, A.K. Moustakas, J. Bui, G.K. Papadopoulos and W.W. Kwok.** Benaroya Res. Inst., Seattle, Technol. Educ. Inst. of Ionian Islands, Cephallonia, Epirus Inst. of Technol., Greece and Univ. of Washington. (49.20)
- 2:15 A polymorphism within interleukin-21 receptor confers risk for systemic lupus erythematosus and is associated with malar rash in lupus patients. **A. Sawalha, R. Webb, J. Merrill, J. Kelly, A. Sestak, K. Kaufman, C. Langefeld, J. Ziegler, R. Kimberly, J. Edberg, R. Ramsey-Goldman, M. Petri, J. Reveille, G. Alarcón, L. Vilá, M. Alarcón-Riquelme, J. James, G. Gilkeson, C. Jacob, K. Moser, P. Gaffney, T. Vyse, S. Nath, P.E. Lipsky and J. Harley.** Univ. of Oklahoma Hlth. Sci. Ctr., Oklahoma VA Med. Ctr., Oklahoma Med. Res. Fndn., Wake Forest Univ. Hlth. Sci., Univ. of Alabama at Birmingham, Northwestern Univ., Johns Hopkins Univ., Univ. of Texas-Houston, Univ. of Puerto Rico, Uppsala Univ., Med. (49.17)
- 2:30 Mapping susceptibility loci for immune mediated nephritis in 129/svJ mice. **S. Xie, L. Li, C. Xie, L. Li, J. Han, T. Wang, J. Zhou and C. Mohan.** Univ. of Texas Southwestern Med. Ctr. (49.19)
- 2:45 Rheumatoid factor autoimmunity in the NZM2410 model combines antigen-specific and polyclonal activation. **H. Niu, Z. Zhou, E.S. Sobel, M.J. Shlomchik and L. Morel.** Univ. of Florida and Yale Univ. Sch. of Med. (49.16)
- 3:00 *IRF5* genetic risk haplotype influences host B cell gene responses to Epstein-Barr virus. **A.K. Templeton, N. Dominguez, R. Lu, G. Vidal, J. Levin, A. Sestak, J. Kelly, K. Kaufman, G. Bruner, P. Gaffney, J. Harley, J. James, J. Guthridge and B. Poole.** Oklahoma Med. Res. Fndn. and Brigham Young Univ. (49.14)

74. INFLAMMATION AND HOST DEFENSE

Block Symposium

SUN. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *Y.S. HAHN*

COCHAired: *G. WILSON*

- 1:30 Effector T-cells control lung inflammation during acute respiratory virus infection by producing interleukin-10. **J. Sun, R. Madan, C.L. Karp and T.J. Braciale.** Univ. of Virginia, Cincinnati Children's Hosp. Res. Fndn. and Univ. of Cincinnati Col. of Med. (43.7)
- 1:45 IL-10 suppresses influenza-specific Th17 responses and is detrimental during high-dose primary challenge. **K.K. McKinstry, T.M. Strutt, H. Hamada, R.W. Dutton and S.L. Swain.** Trudeau Inst., Saranac Lake, NU. (43.8)
- 2:00 The role of IL-10 in mice infected with neurotropic murine coronavirus. **K.A. Trandem and S. Perlman.** Univ. of Iowa. (43.14)
- 2:15 Subcapsular sinus macrophages prevent lethal vesicular stomatitis virus infection. **M. Iannacone, E.A. Moseman, E. Tonti, N. van Rooijen and U.H. von Andrian.** Harvard Med. Sch. and Free Univ. Amsterdam. (43.11)
- 2:30 Adoptive transfer of CD4 T cells into T cell deficient *Mycobacterium avium* infected mice results in a fatal Th1 disease that mimics human immune reconstitution inflammatory syndrome. **D.L. Barber, K.D. Mayer, L.R. Antonelli and A. Sher.** NIAID,

NIH. (43.6)

- 2:45 Regulatory role of IFN-gamma on alveolar macrophage function during influenza infection. **K. Sun and D.W. Metzger.** Albany Med. Col. (43.9)
- 3:00 The neutrophil serine protease inhibitor SerpinB1 protects against inflammatory lung injury and morbidity in influenza virus infection. **D. Gong, C. Benarafa, K.L. Hartshorn and E. Remold-O'Donnell.** Harvard Med. Sch. and Boston Univ. Sch. of Med. (43.10)

75. T CELL EFFECTOR SUBSETS

Block Symposium

SUN. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *A.L. DENT*

COCHAired: *D.B. SANT'ANGELO*

- 1:30 BCL6 is upregulated in Th17 cells and is required to repress GATA3 activity during Th17 differentiation. **A.L. Dent, A. Mondal and D. Sawant.** Indiana Univ. Sch. of Med. (47.27)
- 1:45 PLZF controls the development of innate T cell effector functions. **D.B. Sant'Angelo.** Mem. Sloan-Kettering. (47.28)
- 2:00 IL-25 promotes T_H2 responses through the induction of IL-2. **C. Zaph and D. Artis.** Univ. of British Columbia and Univ. of Pennsylvania. (47.34)
- 2:15 Different by destruction: unequal inheritance of the transcription factor T-bet as a mechanism to diversify daughter T cell fates. **J.T. Chang, J. Kim, I. Kinjyo, C. Yin, L.J. Berg, M. Jordan, G. Koretzky and S.L. Reiner.** Univ. of Pennsylvania and Univ. of Massachusetts Med. Sch. (47.29)
- 2:30 Notch ligand-DLL4 regulated T cell activation and IL-17 production. **S. Mukherjee, M.A. Schaller and N.W. Lukacs.** Univ. of Michigan. (47.30)
- 2:45 Mammalian target of rapamycin complex 2 regulates helper T cell differentiation and function. **K. Lee, P. Gudapati, M. Magnuson, N. Killeen and M. Boothby.** Vanderbilt Univ. and UCSF. (47.31)
- 3:00 TRAF6 is an intrinsic negative regulator of Th17 differentiation. **P.J. Cejas, M.C. Walsh, E.L. Pearce, G. Harms and Y. Choi.** Univ. of Pennsylvania. (47.32)
- 3:15 Reduced Th17 cells in a patient with recurrent staphylococcal disease and neutralizing autoantibodies against IL-6. **A. Puel, L. de Beaucoudrey, M. Chrabieh, C. Picard, D. Gendrel and J-L. Casanova.** INSERM and AP-HP, Paris. (47.33)

76. REGULATION OF ADAPTIVE IMMUNITY DURING INFECTION

Block Symposium

SUN. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *K.L. LEGGE*

COCHAired: *M.G. BROWN*

- 2:45 MHC H-2k prompts Ly49G2⁺ NK cell responsiveness to murine cytomegalovirus and acquisition of virus-specific effector T cells. **M.D. Stadnisky, X. Xie, T.N. Bullock and M.G. Brown.** Univ. of Virginia. (44.16)
- 3:00 Adaptive immune features of natural killer cells. **J.C. Sun, J.N. Beilke and L.L. Lanier.** UCSF. (44.1)
- 3:15 Selective deficiency of STAT1 in CD4⁺ T cells enhances susceptibility to *Leishmania major* infection not by preventing induction of Th1 response, but by impairing CD4⁺ T cell homing. **H.M. Snider, N. Bhardwaj, J. Barbi, C.M. Lezama-Davila, J.E. Durbin and A.R. Satoskar.** Ohio State Univ. and Nationwide Children's Hosp. (44.26)
- 3:30 IL-21 is a central component of CD4 T cell help required to purge a persistent viral infection. **D.G. Brooks, H. Elsaesser and K. Sauer.** UCLA and The Scripps Res. Inst. (44.27)
- 3:45 Novel roles for T-bet in CD8 differentiation during chronic viral infections. **C.C. Kao, A.I. Intlekofer, S.L. Reiner and E.J. Wherry.** The Wistar Inst. and Univ. of Pennsylvania. (44.8)
- 4:00 Plasmacytoid dendritic cells control influenza-specific CD8 T cells numbers through regulated FasL expression during lethal influenza virus infections. **R.A. Langlois and K.L. Legge.** Univ. of Iowa. (44.3)
- 4:15 The role of the TRAF2/3 binding site in LMP1 and CD40 signaling. **J.P. Graham and G.A. Bishop.** Univ. of Iowa. (44.6)
- 4:30 Modulation of CD4⁺ T cells by HCV⁺ hepatocytes. **C.H.T. Hall and Y.S. Hahn.** Univ. of Virginia. (44.15)

77. THERAPEUTIC TARGETS IN AUTOIMMUNE DISEASE

Block Symposium

SUN. 3:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *M.S. BYNOE*

COCHAired: *G.C. TSOKOS*

- 3:45 Transgenic inhibition of astroglial NF- κ B improves functional recovery in EAE by suppressing chronic neuroinflammation. **J.R. Bethea, R. Brambilla, V.I. Shestopalov and S.R. Barnum.** Univ. of Miami and Univ. of Alabama at Birmingham. (50.7)
- 4:00 Increased susceptibility to colitis in the vasoactive intestinal peptide receptor type 2 (VPAC2) mouse: a negative role for VPAC1 receptor in the induction of intestinal inflammation. **M. Yadav and E.J. Goetzl.** UCSF. (50.44)
- 4:15 Nociceptin/orphanin FQ antagonists ameliorate inflammatory bowel disease. **C. Alt, K. Shew, N. Fujita, T-T. Tran, M. Zukic, W. Polgar, L. Toll and A. D'Andrea.** SRI Intl., Menlo Park. (50.45)
- 4:30 Modulation of migration of immune cells and molecules into the central nervous system by adenosine receptor signaling. **M.S. Bynoe, J.H. Mills and L.F. Thompson.** Cornell Univ. and Oklahoma Med. Res. Fndn. (50.5)
- 4:45 A critical mediator of leukocyte extravasation during inflammatory disease. **A.P. Kithcart, T. Sielecki, A. Short, G. Mavrikis, J. Williams, K. Smith, T. Shawler, I. Gienapp, A.R. Satoskar and C.C. Whitacre.** Ohio State Univ. and Cytokine PharmaSciences, King of Prussia, PA. (50.8)
- 5:00 Abrogation of established inflammatory arthritis by the GABAA agonist honokiol. **M.E. Munroe and G.A. Bishop.** Univ. of Iowa and VA Med. Ctr. (50.18)
- 5:15 Inhibition of tnfr1 signaling by p60 plad protein ameliorates skin lesions in lupus mrl/lpr mice. **G-M. Deng, L. Liu and G.C. Tsokos.** Beth Israel Deaconess Med. Ctr. (50.24)
- 5:30 Protection from diabetes after subcutaneous insulin B:9-23/IFA immunization is mediated by Tregs that require IL-10, IFN γ and NO but not IL-4. **G. Fusteri, A. Dave, T. Juntti, A. Bot and M. von Herrath.** La Jolla Inst. for Allergy & Immunol. and Mannkind Corp., Valencia, CA. (50.39)

Monday Block Symposia

110. T CELL DEVELOPMENT

Block Symposium

MON. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *C.H. CHANG*

COCHAired: *N.R. MANLEY*

- 8:00 Real time multi-photon imaging reveals coordination between thymocyte development, location and migration through intrathymic microenvironments. **L.I.R. Ehrlich, D.Y. Oh, R.S. Lewis and I.L. Weissman.** Stanford Univ. (85.6)
- 8:15 Id1 attenuates Notch signaling and impairs T cell commitment by elevating Deltex1 expression. **H-C. Wang and X-H. Sun.** Oklahoma Med. Res. Fndn. (85.3)
- 8:30 NKAP, a novel modulator of Notch signaling, is required for T cell development. **V.S. Shapiro, A.G. Pajerowski, C. Nguyen, H. Aghajanian and M.J. Shapiro.** Mayo Clin. and Univ. of Pennsylvania. (85.5)
- 8:45 Interplay between pre-TCR, CXCR4 and laminin10/11 during thymic β selection. **P.C. Trampont, A. Tosello-Trampont, Y. Shen, A.K. Duley, T.P. Bender, A.B. Sutherland, D.R. Littman and K.S. Ravichandran.** Univ. of Virginia and NYU Sch. of Med. (85.8)
- 9:00 The CD3 ϵ subunit of the T cell receptor contains a basic-rich stretch important for multiple T cell functions. **L.M. Watts, T.C. Tassin, A.M. Becker, J.J. Medeiros, J.P. Albanesi, P.E. Love, C. Wülfing and N.S.C. van Oers.** Univ. of Texas Southwestern Med. Ctr. and NICHD, NIH. (85.4)
- 9:15 AGAPE, a new T cell specific Grb2 binding protein that plays a critical role in T-cell development. **R. Lesourne and P. Love.** NICHD, NIH. (85.7)
- 9:30 c-Myb is a novel regulator of Bcl-xL in the CD4⁺ and CD8⁺ double positive stage of T cell development. **J. Yuan, R.B. Crittenden, K. Rajewsky and T.P. Bender.** Univ. of Virginia and Harvard Med. Sch. (85.2)
- 9:45 Unique properties of CD4 T cells selected by MHC class II expressing thymocytes. **C-H. Chang, H. Sofi, P. King, P. Schwartzberg and Y. Qiao.** Univ. of Michigan Med. Sch. and NHGRI, NIH. (85.1)

111. COMPARATIVE IMMUNOLOGY: HUMORAL AND CELLULAR IMMUNITY

Block Symposium

MON. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *W.T. GOLDE*

COCHAired: *W.C. BROWN*

- 8:00 IgD⁺ cell populations in channel catfish, *Ictalurus punctatus*. **E-S.I. Edholm, J. Stafford, M. Sahoo, E. Bengtén, N. Miller and M. Wilson.** Univ. of Mississippi Med. Ctr. and Univ. of Alberta. (81.8)
- 8:15 The evolution of affinity maturation: germinal center-like cell aggregates in fish. **B.G. Magor, H.L. Saunders and A.L. Oko.** Univ. of Alberta. (81.16)
- 8:30 Onset of antibody repertoire diversification in the rabbit appendix. **D.K. Lanning and K.L. Knight.** Loyola Univ. Chicago, Maywood. (81.17)
- 8:45 Caspase-mediated apoptosis of myeloid dendritic cells during acute simian immunodeficiency virus infection. **V. Wijewardana,**

- K.N. Brown, X. Liu and S.M. Barratt-Boyes.** Univ. of Pittsburgh. (81.15)
- 9:00 Immunological animal models for the immunotherapy against Alzheimer's disease. **V. Vasilevko, E. Head, C.A. Lemere and D.H. Cribbs.** Univ. of California Irvine and Brigham and Women's Hosp., Harvard Med. Sch. (81.13)
- 9:15 Role of CD16 and 2B4 in activation of cytolytic and cytokine release by bovine NK cells. **S.V. Mayer, W. Golde, C.F.C. Scherer, M. Endsley and D.M. Estes.** Univ. of Texas Med. Branch and USDA, Orient Point, NY. (81.2)
- 9:30 Bovine $\gamma\delta$ T cell response in foot-and-mouth disease virus infection. **F.N. Toka and W.T. Golde.** USDA, Orient Point, NY. (81.12)
- 9:45 Evaluation of granulysin and perforin as candidate biomarkers for protection following vaccination with *Mycobacterium bovis* BCG or *M. bovis* Δ RD1. **C.C. Scherer, J.J. Endsley, J. deAguiar, W.R. Jacobs, Jr., M.H. Larsen, M.V. Palmer, B.J. Nonnecke, W.T. Golde, W.R. Waters and D.M. Estes.** Univ. of Texas Med. Branch, Albert Einstein Col. of Med. and USDA, Ames, IA and Orient Point, NY. (81.10)

112. REGULATORY T CELLS AND MECHANISMS OF TOLERANCE

Block Symposium

MON. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *B.T. ROUSE*

COCHAired: *P.A. MOREL*

- 8:00 The neuropeptide npT1 is specifically expressed in human CD25⁺ regulatory T cells. **I. Prots, A. Skapenko, P.E. Lipsky and H. Schulze-Koops.** Univ. of Munich and NIAMS, NIH. (89.5)
- 8:15 Novel population of CD39-expressing T cells enriched in the inflamed site. **H. Moncrieffe, K. Nistala and L.R. Wedderburn.** University Col. London. (89.21)
- 8:30 The naturally arising FoxP3⁺ CD4⁺ regulatory T cells preferentially respond to weak TCR stimulation due to constitutive nuclear translocation of NFAT. **X. Guo, P.E. Jensen and X. Chen.** Univ. of Utah. (89.20)
- 8:45 Antigen dose overrides DC phenotype in the control of CD4⁺ regulatory T cell induction through reduced Akt/mTOR signaling. **M.S. Turner, O.J. Finn and P.A. Morel.** Univ. of Pittsburgh Sch. of Med. (89.30)
- 9:00 Differential effects of galectin-9 ligation with TIM-3 expressed on Th1 and Tregs. **S. Sehrawat, M. Hirashima and B.T. Rouse.** Univ. of Tennessee, Knoxville and Fac. of Med., Kagawa Univ., Japan. (89.12)
- 9:15 T-bet controls regulatory T cell function during type-1 inflammatory responses. **M.A. Koch, N.R. Perdue, G. Tucker-Heard, J.R. Killebrew, K.B. Urdahl and D.J. Campbell.** Univ. of Washington and Benaroya Res. Inst., Seattle. (89.33)
- 9:30 Peptide-induced peripheral T cell deletion leads to tolerance mediated by TRAIL-expressing CD8⁺ regulatory T cells. **P. Gurung, T.A. Ferguson and T.S. Griffith.** Univ. of Iowa and Washington Univ. (89.16)
- 9:45 Identification and characterization of macrophage regulatory cells with immunoregulatory properties. **S. Zorro Manrique, M.A. Duque, A.L. Dominguez, N.N. Mirza, D. Hoelzinger, S.E. Smith and J. Lustgarten.** Mayo Clin. Scottsdale. (89.38)

113. REGULATION OF T CELL SIGNALING

Block Symposium

MON. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6A

CHAired: *D.C. PARKER*

COCHAired: *C. DONG*

- 8:00 MAP kinase phosphatase 1 is necessary for T cell activation and function. **Y. Zhang, J. Reynolds, Y. Chung and C. Dong.** M.D. Anderson Cancer Ctr. (35.1)
- 8:15 A chemical-genetic approach to inhibit Csk activates T cells independently of the T cell receptor. **J.R. Schoenborn, C. Zhang, K.M. Shokat and A. Weiss.** UCSF. (35.4)
- 8:30 Autophagy is essential for ER homeostasis and calcium mobilization in T lymphocytes. **W. Jia and Y-W. He.** Duke Univ. Med. Ctr. (35.13)
- 8:45 Stomatin-like protein 2: a link between T cell activation and mitochondrial function. **D. Christie, C. Lemke, G. Hatch and J. Madrenas.** Univ. of Western Ontario and Univ. of Manitoba. (35.19)
- 9:00 Inhibition of activation-induced T cell death by AIP2-mediated ubiquitination of EGR2. **D. Fang, A. Chen and S-M. Lee.** Univ. of Missouri-Columbia. (35.20)
- 9:15 Gads regulates the signaling threshold for CD8⁺ T cell activation. **E.Y. Zhang and T.M. Yankee.** Univ. of Kansas Med. Ctr. (35.9)
- 9:30 An intrinsic role for the alternative NF- κ B pathway in the T-cell response to virus. **A.M. Rowe, S.E. Murray and D.C. Parker.** Oregon Hlth. & Sci. Univ. (35.21)
- 9:45 SHP-1 regulation of in vivo CD8 T cell responses. **C. Fowler, L. Pao, A. Schietinger, X. Tan, J.N. Blattman and P.D. Greenberg.** Univ. of Washington and Beth Israel Deaconess Med. Ctr. (35.43)

114. MOLECULAR AND FUNCTIONAL REGULATION OF CYTOKINES AND THEIR RECEPTORS

Block Symposium

MON. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *A.D. KEEGAN*

COCHAired: *N. ABRAHAM*

- 8:00 Role of microRNA and AU-rich elements in post-transcriptional regulation of interferon gamma. **R. Savan, R. Yalamanchili, S. Hakim and H.A. Young.** NCI-Frederick. (38.1)
- 8:15 IRS-2 phosphorylation and association with p85 and Grb2 after engagement of type I IL-4 receptor. **N.M. Heller, X. Qi, I.S. Junttila, K.A. Shirey, S.N. Vogel, W.E. Paul and A.D. Keegan.** Univ of Maryland Sch. of Med. and NIAID, NIH. (38.2)
- 8:30 IL-15 receptor alpha increases the stability and promotes secretion and bioactivity of the short signal peptide variant of IL-15. **C. Bergamaschi, R. Jalah, V. Kulkarni, M. Rosati, A. Valentin, G-m. Zhang, C. Alicea, A.S. Zolotukhin, B.K. Felber and G.N. Pavlakis.** NCI-Frederick. (38.3)
- 8:45 Interleukin-7 controls glucose uptake in T lymphocytes by regulating hexokinase II gene expression. **A.R. Khaled and M. Chehtane.** Univ. of Central Florida. (38.4)
- 9:00 Selective ablation of the YxxM motif of IL-7R alpha suppresses lymphomagenesis but maintains lymphocyte development. **L. Osborne, K.A. Duthie, R. Gascoyne and N. Abraham.** Univ. of British Columbia and BC Cancer Agency, Vancouver. (38.5)
- 9:15 Investigating the functional biology of IL-25 during helminth infection. **S.A. Saenz, C. Zaph, M. Mohrs, A. Budelsky and D. Artis.** Univ. of Pennsylvania, Univ. of British Columbia, Trudeau Inst., Saranac Lake, NY and Amgen, Seattle. (38.6)
- 9:30 Contrasting roles for IL-22 in DSS-induced colitis. **C.L. Smith, J.B. Rottman and J.R. Maxwell.** Amgen Inc., Seattle and Cambridge, MA. (38.7)
- 9:45 Insight into mechanism of IL-2-induced toxicity provides rationale for improved treatment strategy using IL-2/mAb complexes. **O. Boyman, C. Krieg, S. Létourneau and G. Pantaleo.** Univ. Hosp. of Lausanne. (38.8)

115. LEUKOCYTE ADHESION AND RECRUITMENT

Block Symposium

MON. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *D.A. STEEBER*

COCHAired: *S. VON VIETINGHOFF*

- 10:15 Severe impairment of leukocyte recruitment into inflamed tissue of ppGalNAcT1-deficient mice. **H. Mueller, M. Tenno, H. Van Aken, J.D. Marth, K. Ley and A. Zarbock.** Univ. of Muenster, UCSD and La Jolla Inst. for Allergy & Immunol. (94.1)
- 10:30 CalDAG-GEF-I is required for E-selectin-dependent slow leukocyte rolling. **A. Zarbock, H. Mueller, W. Bergmeier, C.A. Lowell, H. Van Aken, D.D. Wagner and K. Ley.** Univ. of Muenster, Germany, La Jolla Inst. for Allergy & Immunol., Thomas Jefferson Univ., UCSF and Harvard Med. Sch. (94.2)
- 10:45 Mechanism of platelet adhesion to neutrophils in sepsis. **R. Urrutia, A.C. Ma and P. Kubes.** Univ. of Calgary, Canada. (94.3)
- 11:00 Type-I interferon modulates monocyte recruitment and maturation in chronic inflammation. **P.Y. Lee, Y. Li, Y. Kumagai, J. Weinstein, D. Nacionales, E. Butfiloski, E. Kellner, S. Akira, E. Sobel, M. Satoh and W. Reeves.** Univ. of Florida and Osaka Univ. (94.4)
- 11:15 Monocyte chemoattractant protein-1 (MCP-1), not MCP-3, is the primary chemokine required for monocyte recruitment in thioglycollate-induced peritonitis. **T. Yoshimura, M. Takahashi, C. Galligan and L. Tesserollo.** NCI-Frederick. (94.5)
- 11:30 Differentiation of blood monocytes to dendritic cells following reverse transmigration across the blood-brain barrier. **J. Talreja, R. Prameya and K. Dorovini-Zis.** Univ. of British Columbia. (94.6)
- 11:45 Endoglycan is a CD34-related marker of marginal zone B cells and is upregulated by TLR ligands. **A. Hirukawa, H. Merckens, E.J. Frohwerk, M. Lam, M. David, S.G.B. Furness, M.R. Hughes and K.M. McNagny.** Univ. of British Columbia. (94.7)

116. MOLECULAR MECHANISMS OF ANTIGEN PROCESSING

Block Symposium

MON. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *J.R. DRAKE*

COCHAired: *P.A. ROCHE*

- 10:15 A cell-free antigen processing system identifies immunodominant epitopes. **A. Kim, I. Hartman and S. Sadegh-Nasseri.** Johns Hopkins Univ. (78.19)
- 10:30 The absence of ER trimming alters peptides presented by non-classical MHC class I molecules. **N.A. Nagarajan, F. Gonzalez and N. Shastri.** Univ. of California Berkeley. (78.8)
- 10:45 Exogenous antigen enters the major histocompatibility complex class I pathway via multiple endocytic compartments with distinct molecular and proteolytic requirements. **R. Belizaire and E. Unanue.** Washington Univ. (78.31)
- 11:00 Carbohydrate antigen processing is self-regulated and promotes conventional antigen processing. **B.A. Cobb and C.J. Lewis.** Case Western Reserve Univ. Sch. of Med. (78.20)
- 11:15 A threonine-based targeting signal in the human CD1d cytoplasmic tail controls its functional expression. **J. Liu, S. Daniel and R.R. Brutkiewicz.** Indiana Univ. Sch. of Med. (78.4)

- 11:30 The membrane distribution of MHC-II-peptide complexes and its role in T cell activation. **B. Bosch Pages and P.A. Roche.** NCI, NIH. (78.18)
- 11:45 Possible role of class I myosins in molecule segregation at B cell microvilli structures. **J.L. Maravillas-Montero, P.G. Gillespie, G. Patino-Lopez, S. Shaw and L. Santos-Argumedo.** CINVESTAV-IPN, Mexico City, Oregon Hlth. & Sci. Univ. and NCI, NIH. (78.37)
- 12:00 APLP2 diverts MHC-peptide complexes to clathrin-mediated endocytosis and lysosomal degradation. **A. Tuli, M. Sharma, H. Capek, N. Naslavsky, S. Caplan and J. Solheim.** Univ. of Nebraska Med. Ctr. (78.14)

117. MYELOID CELL AND DENDRITIC CELL DEVELOPMENT

Block Symposium

MON. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *S. KOVATS*

COCHAired: *T. KAMBAYASHI*

- 10:15 Unexpected expression of peptidoglycan recognition protein 2 in lymphocytes and bone marrow hematopoietic stem cells. **Z. Wang, M. Xu and R.M. Locksley.** UCSF and Genetech Inc. (87.8)
- 10:30 Haploinsufficiency of Flt3-ligand limits RAG1 locus activation. **J.J. Dolence, K. Gwin and K.L. Medina.** Mayo Clin. (87.2)
- 10:45 Estrogen receptor signaling promotes langerin⁺ dendritic cell differentiation by increasing expression of the transcription factor IRF4. **E. Carreras-Margalef, S. Turner, M.B. Frank, N. Knowlton, J. Osban, M.B. Centola, J. Alberola-Ila and S. Kovats.** Oklahoma Med. Res. Fndn. (87.1)
- 11:00 Interferon gamma-dependent alterations in the hematopoietic stem cell pool during infection. **K.C. MacNamara, K. Oduro, R. Racine, K. Choi and G. Winslow.** Wadsworth Ctr., Albany, NY and Washington Univ. (87.4)
- 11:15 A comparison of steady-state and emergency granulopoiesis: evidence of a single pathway for neutrophil production. **D.W. Cain, Y. Ueda, T.M. Holl, P.B. Snowden, M. Kondo and G. Kelsoe.** Duke Univ. and Kansai Med. Univ., Japan. (87.5)
- 11:30 Bcl3 protects against lung graft injury by limiting emergency granulopoiesis. **S. Sugimoto, D. Kreisel, R. Carmody and A.E. Gelman.** Washington Univ. Sch. of Med. and University Col. Cork. (87.7)
- 11:45 Estrogen receptor expression promotes the differentiation and activation of splenic dendritic cells and macrophages during inflammation in vivo. **H. Agrawal, E. Carreras, S. Bajana and S. Kovats.** Oklahoma Med. Res. Fndn. (87.6)
- 12:00 cFLIP is required for macrophage survival and neutrophil homeostasis. **C.L. Gordy, H. Pua and Y-W. He.** Duke Univ. (87.3)

118. IMMUNE RESPONSE TO TUMORS

Block Symposium

MON. 12:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6E

CHAired: *A. WEINBERG*

COCHAired: *Y.E. LATCHMAN*

- 12:30 Ligation of the OX40 co-stimulatory receptor reverses self-Ag and tumor-induced CD8 T cell anergy in vivo. **W. Redmond, M. Gough and A. Weinberg.** Providence Portland Med. Ctr., OR. (40.30)
- 12:45 Synergy between molecular targets of costimulation in promoting T cell persistence. **J. Song and M. Croft.** Penn State Col. of Med. and La Jolla Inst. for Allergy & Immunol. (40.31)
- 1:00 NKT activation together with blockade of PD-L1 pathway lead to enhanced tumor responses. **Y.E. Latchman, K. Durgan and P. Warner.** Puget Sound Blood Ctr., Seattle. (40.32)
- 1:15 CD8⁺ T cell precursor frequency determines the quality of the anti-tumor immune response. **G.A. Rizzuto, T. Merghoub, D. Hirschhorn-Cymerman, C. Liu, A.M. Leskoinen, H. Zhong, K.S. Panageas, M-A. Perales, G. Altan-Bonnet, J.D. Wolchok and A.N. Houghton.** Mem. Sloan-Kettering Cancer Ctr. and Weill Cornell Med. Col. (40.33)
- 1:30 Cancer immunoediting by the innate immune system. **J.D. Bui, W. Vermi, J. Ngolab, C. Arthur, J.M. White, R. Uppaluri and R.D. Schreiber.** UCSD and Washington Univ. in St. Louis. (40.34)
- 1:45 Regulatory CD4⁺CD25⁺FOXP3⁺ T-cells can be converted into cytotoxic effectors. **T. Peikert, K. Coughlin, V. Van Keulen, M. Hansen and L. Pease.** Mayo Clin. (40.36)
- 2:00 Cbl-b-deficiency in tumor-reactive CD8⁺ T cells improves efficacy and bypasses the requirement for IL-2 administration during adoptive therapy of progressive leukemia. **I.M. Stromnes, J.N. Blattman, X. Tan and P.D. Greenberg.** Univ. of Washington Sch. of Med. and Fred Hutchinson Cancer Res. Ctr. (40.38)
- 2:15 IL-21 induced Bcl3 expression blocks type 1 effector differentiation of CD8⁺ T cells and enhances their tumor efficacy. **P.A. Shrikant.** Roswell Park Cancer Inst. (40.35)

119. T CELL ACTIVATION, DIFFERENTIATION AND INHIBITION

Block Symposium

MON. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *R.S. MITTLER*

COCHAired: *P.D. Katsikis*

- 1:30 Developmental requirements of T follicular helper cells. **R. Nurieva, Y. Chung and C. Dong.** Univ. of Texas M.D. Anderson Cancer Ctr. (90.10)
- 1:45 Tim-3 regulation of T cell effector function. **E.W. Su, J. Lee and L.P. Kane.** Univ. of Pittsburgh. (90.13)
- 2:00 Notch ligands jagged-1 and delta-like 4 differentially regulate effector and memory CD4⁺ T cell expansion during Th2 inflammation. **M.A. Schaller, A.L. Coelho, D.M. Lindell, P. Lincoln, W.F. Carson, T. Ito, K.A. Cavassani, S.W. Chensue, C.M. Hogaboam, N.W. Lukacs and S.L. Kunkel.** Univ. of Michigan. (90.21)
- 2:15 Identification and characterization of Vstm3 as an inhibitory member of the CD28 family. **S.D. Levin, C.S. Brandt, E.D. Howard, J. Johnston, E. Chadwick, A. Hammond, D.W. Taft, L. Hebb, A. Wolf, T.R. Bukowski, M. Rixon, C.D. Ostrander, J.W. West, B. Fox, Z. Gao, K.E. Lewis, W. Xu and F. Ramsdell.** ZymoGenetics Inc., Seattle. (90.31)
- 2:30 Ndfip1 regulates adaptive and innate immune responses in a model of inflammatory bowel disease. **H.E. Ramon, C.R. Riling, H. Hakonarson and P.M. Oliver.** Univ. of Pennsylvania and Children's Hosp. of Philadelphia. (90.17)
- 2:45 Distinct subsets of human skin dendritic cells differ on their ability to initiate Th17 responses. **A.R. Mathers, B.M. Janelins, J.P. Rubin, O.A. Tkacheva, W.J. Shufesky, A.E. Morelli and A.T. Larregina.** Univ. of Pittsburgh. (90.24)
- 3:00 Combining PDL-1 blockade with agonistic antibodies against 4-1BB enhances T cell restoration after chronic LCMV infection. **P. Penalzo MacMaster, V. Vezys, S-J. Ha, B. Konieczny, D. Barber, R. Mittler and R. Ahmed.** Emory Univ. and Univ. of Minnesota, Minneapolis. (90.22)
- 3:15 A critical role for microRNA miR-155 in CD8⁺ T cell responses. **E. Stelekati, A.C. Boesteanu, D.T. Gracias, Y.M. Mueller, E. Vigorito, J.A. Norton, M. Turner and P.D. Katsikis.** Drexel Univ. Col. of Med. and The Babraham Inst., Cambridge, U.K. (90.23)

120. CYTOKINES AND CHEMOKINES IN EFFECTOR/MEMORY T CELL DIFFERENTIATION

Block Symposium

MON. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *C.B. Wilson*

COCHAired: *P. Scott*

- 1:30 Th1 fidelity versus Th1/Th17 plasticity are dictated in vivo by pathogen lifestyle, exogenous cytokines and prior expression of IFN-gamma. **M.M. Curtis, S.S. Way, E. Rowell, K.B. Urdahl and C.B. Wilson.** Univ. of Washington and Univ of Minnesota, Minneapolis. (96.1)
- 1:45 CCR6 regulates the migration and effector function of Th17 cells in the gut. **C. Wang, S.G. Kang, J.H. Lee and C.H. Kim.** Purdue Univ. (96.2)
- 2:00 CD8 T cells producing IFN- γ and IL-17 induce the innate immune response required for T cell mediated responses in the skin. **D.D. Kish.** Cleveland Clin. (96.3)
- 2:15 Type I IFN-induced chemokine production and the regulation of immune effector cell trafficking from the bone marrow during acute MCMV infection. **M.J. Crane, K.L. Hokeness-Antonelli and T.P. Salazar-Mather.** Brown Univ. and Bryant Univ. (96.4)
- 2:30 CC chemokine receptor 4 is required for optimal Th1 memory but not IL-17⁺ gamma/delta T cell effector responses during *Mycobacterium bovis* infection. **S.W. Chensue, V.R. Stolberg, B-C. Chiu, B.M. Schmidt, S.L. Kunkel and M. Sandor.** Univ. of Michigan Med. Sch., VA Ann Arbor Healthcare Syst. and Univ. of Wisconsin-Madison. (96.5)
- 2:45 Interleukin-7 receptor expression provides the potential for long-term survival of both CD62L^{high} central memory T cells and Th1 effector cells during *Leishmania major* infection. **S.L. Colpitts, N.M. Dalton and P. Scott.** Univ. of Pennsylvania Sch. of Vet. Med. (96.6)
- 3:00 IL-15 and IL-21 mediated homeostatic proliferation of human CD8 memory T cells. **H. Nguyen and N-p. Weng.** NIA, NIH, Baltimore. (96.7)
- 3:15 Acquisition of effector and memory responses is reciprocally regulated by IL-12 and IFN- α/β in human CD8⁺ T cells. **H.J. Ramos, A.M. Davis, A.G. Cole and J.D. Farrar.** Univ. of Texas Southwestern Med. Ctr. (96.8)

121. THYMIC ORGANOGENESIS AND AGING

Block Symposium

MON. 1:30 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *P.T. Le*

COCHAired: *A.N. Vallejo*

- 1:30 Foxn1 is required for thymic vascularization. **N.R. Manley, J.L. Bryson, A.V. Griffith, Y. Takahama and E.R. Richie.** Univ. of Georgia, Univ. of Texas M.D. Anderson Cancer Ctr., Smithville and Univ. of Tokushima, Japan. (86.7)
- 1:45 Tbx1 antagonizes thymus organogenesis. **K.T. Cardenas, Z. Liu, M. Laurent, C. Carter, N.R. Manley and E.R. Richie.** Univ. of Texas M.D. Anderson Cancer Ctr. and Univ. of Georgia. (86.4)
- 2:00 Human thymic epithelial cell culture system for promoting T lineage commitment and development of T cells from cord blood and bone marrow stem cells. **P.T. Le, S. Zhang, B.C. Beaudette-Zlatanova, P.J. Stiff and K.L. Knight.** Loyola Univ. Med.

- Ctr. (86.6)
- 2:15 Cross-talk between IL-7Ra signaling and p53 pathway during thymopoiesis and lymphomagenesis. **R. Kibe, S-Z. Zhang, L. Marrero, S. Khan, A. Zieske, J. Huang, S.K. Durum, T. Iwakuma and Y. Cui.** LSU Hlth. Sci. Ctr., New Orleans and NCI-Frederick. (86.8)
- 2:30 Correlating expression of syndecan 1, a novel marker for certain thymocytes, with development into unique alpha/beta T cell lineages. **A.R. Hamad, Z. Xiao, M. Li, J.P. Schneck and A. Mohamood.** Johns Hopkins Univ. Sch. of Med. (86.3)
- 2:45 Age-related thymic involution is associated with loss of medullary epithelial subsets and regulated by Foxn1. **D-M. Su, L. Sun, J. Guo, L. Cheng and A. Tvinnerim.** Univ. of Texas Hlth. Sci. Ctr. at Tyler. (86.1)
- 3:00 Forced-expression of Foxn1 in stromal cells maintains thymic architecture and thymopoiesis in aged mice. **E.C. Zook, S. Zhang, P.L. Witte and P.T. Le.** Loyola Univ. Stritch Sch. of Med. (86.5)
- 3:15 Functional competence of T cells and resistance to thymic involution in long-lived mice deficient in pregnancy-associated plasma protein A. **A.N. Vallejo, J.J. Michel, L.K. Bale, B.H. Lemster, L.A. Borghesi and C.A. Conover.** Univ. of Pittsburgh and Mayo Clin. (86.2)

122. T CELL MEMORY

Block Symposium

MON. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6E

CHAired: *M.C. MICELI*

COCHAired: *K. MURALI-KRISHNA*

- 2:45 Caveolin-1 expression in CD8 T cells positively regulates CD8 T cell function and burst size. **T.K. Tomassian, S.D. Liu and M.C. Miceli.** UCLA. (83.15)
- 3:00 Differential localization of effector and memory T cell subsets. **Y.W. Jung and S.M. Kaech.** Yale Univ. (83.16)
- 3:15 IL-2 signals are required for complete effector differentiation of CD8⁺ T cells upon acute infection in vivo. **J.A. Sacks and M.J. Bevan.** Univ. of Washington. (83.17)
- 3:30 The CD8⁺ T cell memory state of readiness is actively maintained and reversible. **A. Allam, M.L. Giardino Torchia, D. Conze, H. Yagita, I. Munitic, R.T. Sowell, A.L. Marzo and J.D. Ashwell.** NCI, NIH, Juntendo Univ. Sch. of Med., Japan, Fac. Rene Descartes, Necker Inst., Paris and Rush Univ. Med. Ctr. (83.18)
- 3:45 Lack of LFA1 mediated signals promotes generation of memory precursor effector CD8 T cells during LCMV infection. **A. Peixoto, M. Iannacone, D. Alvarez, I. Buchanan, M. Flynn and U.H. von Andrian.** Harvard Med. Sch. (83.19)
- 4:00 Molecular signature of human virus specific effector CD8⁺ T cells. **R.S. Akondy, J.D. Miller, G. Doho, H. Wu, M. Zilliox, C. de Rio, M.J. Mulligan, S. Edupuganti, W.N. Haining and R. Ahmed.** Emory Univ. Sch. of Med. and Dana Farber cancer Inst. (83.20)
- 4:15 The tyrosine kinase PYK2 integrates TCR and LFA-1 signaling in CD8 T cells to promote effector versus memory fate. **S. Beinke, M. Matloubian, J. Schlessinger and A. Weiss.** UCSF and Yale Univ. Sch. of Med. (83.21)
- 4:30 Exploring myths of CD8⁺ T cell contraction. **M. Prlic and M.J. Bevan.** Univ. of Washington. (83.22)

123. MIGRATION OF ANTIGEN-PRESENTING CELLS IN INFLAMMATION

Block Symposium

MON. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *K.M. McNAGNY*

COCHAired: *M.B. GRISHAM*

- 2:45 CD34 mediates dendritic cell trafficking in hypersensitivity pneumonitis. **J.L. Bennett, M.R. Blanchet, M. Girard, Y. Cormier and K.M. McNagny.** Univ. of British Columbia and Hosp. Laval, Sainte-Foy, Canada. (92.1)
- 3:00 IFN β inhibits DC migration in vitro and in vivo. **J-H. Yen and D. Ganea.** Temple Univ. Sch. of Med. (92.2)
- 3:15 Oxidative stress-induced protein radical formation precedes follicular dendritic cell apoptosis in murine sepsis. **S. Chatterjee, L. Deterding, J. Tucker, J. Corbett and R.P. Mason.** NIEHS, NIH, Research Triangle Park. (92.3)
- 3:30 Cysteine protease activators of plasma chemoattractant chemerin. **J. Cichy, P. Kulig, A. Stefanska, T. Kantyka, B.A. Zabel, J. Potempa and E.C. Butcher.** Jagiellonian Univ., Poland and Stanford Univ. Med. Sch. (92.4)
- 3:45 An evaluation of fetal/neonatal and chronic adult ethanol exposure on murine cutaneous dendritic cell maturation and migration using an organ culture system. **C.P. Parlet and A.J. Schlueter.** Univ. of Iowa. (92.5)
- 4:00 A CCR2/CCR5-dual antagonist, BMS-A, offers a potential novel oral therapy for the treatment of autoimmune disease. **Q. Zhao, J. Pang, K. McIntyre, K. Gillooly, R. Townsend, J. Postelnek, R. Grafstrom, B. He, G. Ford, S. Conarello, J. Xie, P. Davies, J. Barrish, J. Trzaskos, L. Salter-Cid, M. Mckinnon, S. Mandlekar and P. Carter.** Bristol-Myers Squibb, Princeton. (92.6)
- 4:15 Bone marrow Ly6Chi monocytes are recruited to injured kidney and differentiate into Ly6Clo profibrotic macrophages. **A.P. Castano, S.L. Lin and J.S. Duffield.** Harvard Med. Sch. (92.7)
- 4:30 Differential PPAR γ and δ expression in F4/80^{hi} and F4/80^{lo} adipose tissue macrophages. **J. Bassaganya-Riera, A.J. Guri and R. Hontecillas.** Virginia Tech. (92.8)

124. REGULATORY MECHANISMS IN AUTOIMMUNE DISEASE

Block Symposium

MON. 2:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6A

CHAired: *J.D. MOUNTZ*

COCHAired: *K.B. ELKON*

- 2:45 A self-peptide with large anchor residues binds IAd and induces Th2-like autoimmune gastritis. **M.J.R. Revilleza, D. Levin, M.G. Mage, L. Teyton, H. Robinson, E.M. Shevach and K. Natarajan.** NIAID, NIH, Ort Braude Engin. Col., Israel, The Scripps Res. Inst. and Brookhaven Natl. Lab. (99.45)
- 3:00 Select T cell receptor utilization by CD4⁺ T cells in a murine model of systemic lupus erythematosus is similar to human disease. **S. Trivedi, S. Culpepper, Y. Zang, L. Martinez, E.L. Greidinger and R.W. Hoffman.** Univ. of Miami Miller Sch. of Med. and Miami VA Med. Ctr. (99.31)
- 3:15 Kinetic differences in the activation of CD4⁺ T cells during the initiation of tolerance and autoimmunity. **S. Katzman, A. Villarino, W. O’Gorman, G. Nolan and A. Abbas.** UCSF and Stanford Univ. (99.50)
- 3:30 Identification of serum proteins that inhibit lupus immune complex stimulation of plasmacytoid dendritic cells. **D. Santer and K.B. Elkon.** Univ. of Washington. (99.34)
- 3:45 A key role for Fas ligand expressed on B cells in initiation of autoimmune diabetes. **Z. Xiao, M. Li, J.P. Schneck and A.R. Hamad.** Johns Hopkins Univ. (99.17)
- 4:00 Migration of marginal zone precursor B cells into the T-cell zone promoted by interferon-alpha induces a T-dependent germinal center response. **H-C. Hsu, J. Wang, Q. Wu, J. Li, P. Yang, H. Li and J.D. Mountz.** Univ. of Alabama at Birmingham and Birmingham VA Med. Ctr. (99.33)
- 4:15 Dual role of CD8⁺ T cells in PLPp91-110 induced experimental autoimmune encephalomyelitis in HLA-DR3.Abo transgenic mice. **A.K. Mangalam, D. Luckey, M. Smart, L. Pease, M. Rodriguez and C.S. David.** Mayo Clin. (99.1)
- 4:30 A new mode of TNF- α inhibition by microRNA. **L. Frenzel, N. Semaan, G. Alsaleh, D. Wachsmann, J-E. Gottenberg and J. Sibilia.** Univ. of Strasbourg, France. (99.26)

125. CYTOKINES AND IMMUNOREGULATION

Block Symposium

MON. 3:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *M. BOOTHBY*

COCHAired: *S.C. MORRIS*

- 3:45 A regulatory B cell subset with a unique CD1dhiCD5⁺ phenotype controls T cell-dependent inflammatory responses. **K. Yanaba, J-D. Bouaziz, S. Sato and T.F. Tedder.** Nagasaki Univ. Grad. Sch. of Med. Biosci. and Duke Univ. Med. Ctr. (97.1)
- 4:00 An accessory role for B cells in the IL-12 induced activation of resting murine NK lymphocytes. **E.A. Haddad, L. Senger and F. Takei.** BC Cancer Res. Ctr. and Univ. of British Columbia. (97.2)
- 4:15 Unique immune regulation by alternatively spliced IL-4. **S.P. Atamas, V. Locketell, N.W. Todd and I.G. Luzina.** Univ. of Maryland Sch. of Med. and Baltimore VA Med. Ctr. (97.3)
- 4:30 PARP-14 mediates IL-4-enhanced metabolic function and survival of B cells. **S.H. Cho and M. Boothby.** Vanderbilt Univ. (97.4)
- 4:45 Interleukin-21 mediates unanticipated suppressive effects via its induction of IL-10. **R. Spolski and W.J. Leonard.** NHLBI, NIH. (97.5)
- 5:00 Cell cycle progression following naive T cell activation is independent of Jak3/gc cytokine signals. **M. Shi, T. Lin, K. Appell and L. Berg.** Univ. of Massachusetts Med. Sch. and Pharmacoepia Inc., Princeton. (97.6)
- 5:15 *Helicobacter pylori* induces gastric epithelial cell production of TGF- β that suppresses CD4⁺ T cells. **E.J. Beswick, I.V. Pinchuk, D.A. Schmitt and V.E. Reyes.** Univ. of Texas Med. Branch. (97.7)
- 5:30 IL-4 regulates CD8⁺ T cell homeostasis in BALB/c but not C57BL/6 mice. **S.C. Morris, S. Ruwe, J. Scott and F.D. Finkelman.** Cincinnati VA Med. Ctr. and Univ. of Cincinnati Col. of Med. (97.8)

126. REGULATION OF INFLAMMATORY RESPONSES

Block Symposium

MON. 3:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *E.M. LORD*

COCHAired: *D.C. BULLARD*

- 3:45 Lupus serum induces skin inflammation through TNFR1 pathway. **G-M. Deng, L. Liu, V.C. Kytтары and G.C. Tsokos.** Beth Isarel Deaconess Med. Ctr. (93.1)
- 4:00 CD34 is required for the infiltration of inflammatory cells into the colon in a mouse model of ulcerative colitis. **S.J. Maltby, C. Wohlfarth, K.M. McNagny and M.R. Hughes.** Univ. of British Columbia. (93.2)

- 4:15 Visualizing the rapid and localized keratinocyte expression of dendritic epidermal T cell antigens in response to wounding. **H.K. Komori, D.A. Witherden, L. Teyton and W.L. Havran.** The Scripps Res. Inst. (93.3)
- 4:30 The role of inflammation in diet-induced obesity. **L.A. Alexander, B.D. Slotterbeck, S.M. Najjar and M.F. McInerney.** Univ. of Toledo. (93.4)
- 4:45 IL-17 stimulates granulopoiesis via IL-6 induction. **H. Sun and S. Worthen.** Children's Hosp. of Philadelphia. (93.5)
- 5:00 Glycogen synthase kinase-3 β regulates antigen/SCF-mediated cytokine production and SCF-mediated chemotaxis in human mast cells. **M. Radinger, H.S. Kuehn, M-S. Kim, D.D. Metcalfe and A.M. Gilfillan.** NIAID, NIH. (93.6)
- 5:15 Delineation of hypoxia versus inflammatory contributions to tissue injury by attenuation of G α i signaling. **C.M. Moratz, R. Egan, A. Zacharia, M. Simovic, I. Gist, J. Dalle Lucca and G.C. Tsokos.** Walter Reed Army Inst. of Res., Uniform Svcs. Univ. of Hlth. Sci. and Harvard Med. Sch. (93.7)
- 5:30 Nuclear factor-kappaB provides mechanistic link between inflammation and prostate cancer. **E. Vykhoanets, G.T. MacLennan, O. Vykhoanets and S. Gupta.** Case Western Reserve Univ. and Univ. Hosps. Case Med. Ctr. (93.8)

127. GENETIC AND EPIGENETIC REGULATION OF DEVELOPMENTAL DECISIONS

Block Symposium

MON. 3:45 PM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *B.D. ORTIZ*

COCHAired: *T.W. McKEITHAN*

- 3:45 Dephosphorylation of Ikaros by a specific phosphatase regulates its function in chromatin remodeling. **S. Dovat, Z. Gurel, K.J. Payne and M. Popescu.** Univ. of Wisconsin-Madison and Loma Linda Univ. (136.9)
- 4:00 Deletion of miRNAs in bone marrow disrupts iNKT cell development and function. **L. Zhou, K-H. Seo, H-Z. He, R. Pacholczyk, D-M. Meng, Z. Dong and Q-S. Mi.** Henry Ford Hlth. Syst. and Med. Col. of Georgia. (136.19)
- 4:15 Mechanism of *Th-POK* gene regulation during differentiation of helper-lineage T cells. **I. Taniuchi and S. Muroi.** RIKEN RCI, Yokohama. (136.10)
- 4:30 Evidence of epigenetic suppression of genes involved in lineage commitment in naive CD4⁺ T cells following severe sepsis. **W.F. Carson IV, K.A. Cavassani, M.A. Schaller, T. Ito, M. Ishii and S.L. Kunkel.** Univ. of Michigan. (136.17)
- 4:45 Epigenetic regulation of BCL6 and other genes important for B-cell maturation. **H. Ramachandrareddy, Y. Shen, W.C. Chan and T.W. McKeithan.** Univ. of Nebraska Med. Ctr. (136.32)
- 5:00 BCR-induced cell death of B cells from CD22 deficient mice is mediated by a novel ssRNA-directed endonuclease. **J.C. Poe, E.I. Kountikov and T.F. Tedder.** Duke Univ. Med. Ctr. (136.33)
- 5:15 Improved peripheral T cell expression of T-cell receptor (TCR)- α transgenes in TCR α /Dad1 locus-like two gene reporter systems. **B.D. Ortiz, J. Gomos-Klein, S. Knirr, B. Andino, F. Harrow, K. Erhard, D. Kovalovsky and D.B. Sant'Angelo.** Hunter Col, CUNY and Mem. Sloan-Kettering Cancer Ctr. (136.14)
- 5:30 Characterization of miRNA regulation of T cell differentiation. **Y. Bronevetsky and M. Ansel.** UCSF. (136.18)

Tuesday Block Symposia

144. IMMUNOLOGICAL IMPACT OF ANTIGEN PROCESSING

Block Symposium

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *M. BOUVIER*

COCHAired: *R.R. BRUTKIEWICZ*

- 8:00 Dendritic cell antigen presentation drives simultaneous cytokine production by effector and regulatory T cells in inflamed skin. **J.B. McLachlan, D.M. Catron, J.J. Moon and M.K. Jenkins.** Univ. of Minnesota, Minneapolis. (78.24)
- 8:15 Antigen processing and MHC-II presentation by dermal and tumor infiltrating dendritic cells. **M.Y. Gerner and M.F. Mescher.** Univ. of Minnesota-Twin Cities. (78.26)
- 8:30 Modulating MHC class II antigen processing in dendritic cells prevents diabetes in NOD mice. **L.K. Denzin, W. Yi, K.W. Wucherpfennig and D.B. Sant'Angelo.** Sloan-Kettering Inst. and Dana-Farber Cancer Inst. (78.25)
- 8:45 Paradoxical influence of the quantity of antigen expressed by the antigen donor cell on the efficiency of cross priming. **J.B. Kelly III and P.K. Srivastava.** Univ. of Connecticut Sch. of Med. (78.30)
- 9:00 A molecular understanding of how the immunomodulatory E3-19K protein from adenovirus interferes with the class I antigen presentation pathway. **M. Bouvier and J. Fu.** Univ. of Illinois at Chicago. (78.13)
- 9:15 Adapter-mediated substrate selection by a viral immune evasion molecule. **K.M. Corcoran, X. Wang and L. Lybarger.** Univ. of Arizona and Washington Univ. Sch. of Med. (78.15)
- 9:30 B lymphocyte-induced maturation protein-1/positive regulatory domain I-binding factor 1 regulates two amino peptidases associated with antigen processing. **J.F. Piskurich and V.I. Mayorov.** Texas Tech Univ. Hlth. Sci. Ctr., El Paso and Mercer Univ. Sch. of Med. (78.9)
- 9:45 MR1 antigen presentation to mucosal-associated invariant T cells is highly conserved in mammals. **S. Huang, E. Martin, S.**

Kim, L. Yu, C. Soudais, D.H. Fremont, O. Lantz and T.H. Hansen. Washington Univ. in St. Louis and Inst. Curie, Paris. (78.7)

145. NODS AND THE INFLAMMASOME

Block Symposium

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6A

CHAired: *E.R. PODACK*

COCHAired: *K.B. URDAHL*

- 8:00 NLR4 is an innate immune detector of the bacterial type III secretion apparatus. **E.A. Miao, D. Mao, N. Yudkovsky, R. Bonnea and A. Aderem.** Inst. for Syst. Biol., Seattle and NYU. (135.72)
- 8:15 The inflammasome as a therapeutic target to improve outcomes after injury to the central nervous system. **J.P. de Rivero Vaccari, G. Lotocki, W.D. Dietrich and R.W. Keane.** Univ. of Miami. (135.73)
- 8:30 NLRP12 regulates TLR2/dectin-1 fungal receptor signaling through association with CARD9. **C. Lord, H. Goto, J.M. Thomas, S. Mukherjee, H. Nambu, R.A. Cramer, X. Lin, J.R. Wright and K. Williams.** Duke Univ. Med. Ctr., Montana State Univ. and Univ. of Texas M.D. Anderson Cancer Ctr. (135.74)
- 8:45 Nod1 and Nod2 regulation of pulmonary immunity to *Legionella pneumophila*. **W.R. Berrington, K.D. Smith, R.D. Wells, M. Jansson-Hutson, R. Iyer, S.J. Skerrett and T.R. Hawn.** Univ. of Washington. (135.77)
- 9:00 Structure of NALP1/NLRP1 leucine-rich repeats and potential ligand binding. **T. Jin, J. Jiang, A. Perry and T. Xiao.** NIAID, NIH. (135.79)
- 9:15 Inflammasome-activating biodegradable nanoparticulates as vaccine delivery systems. **T.M. Fahmy, S. Demento, S.C. Eisenbarth, M.J. Caplan, W.M. Saltzman, I. Mellman, M. Ledizet, E. Fikrig and R. Flavell.** Yale Univ., Yale Univ. Sch. of Med., Genentech Inc. and L2 Diagnostics, New Haven. (135.80)
- 9:30 Regulation of IL-1 β and IL-23 production by beta-glucan in human dendritic cells. **L.A. Lyakh, M. Cardone, E. Riboldi and G. Trinchieri.** NCI-Frederick. (135.76)

146. CELLULAR AND MOLECULAR IMMUNOREGULATION

Block Symposium (Late-Breaking Abstracts)

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *D.J. RAWLINGS*

COCHAired: *G.L. SCHIEVEN*

- 8:00 CD46-induced regulatory T cells suppress *Mycobacterium tuberculosis*-specific effector T cell responses. **S.M. Truscott, G. Abate, J.D. Price, C. Kemper, J.P. Atkinson and D.F. Hoft.** Saint Louis Univ. and Washington Univ. in St. Louis. (33.5)
- 8:15 Dasatinib potential for anti-inflammatory efficacy while avoiding suppression of T cell activation in preclinical models. **G.L. Schieven, R. Zhang, S. Pitt, K. McIntyre, K. Gillooly, B. Brock, R. Smykla, R. Townsend, L. Saltercid and F. Lee.** Bristol-Myers Squibb, Princeton. (33.8)
- 8:30 Direct CD8:CD4 T cell interactions improve memory recall of CD8 T cells. **P.A. Romagnoli, M.F. Premenko-Lanier, G.D. Loria and J.D. Altman.** Emory Univ. (33.9)
- 8:45 Real-time imaging of TCR dynamics in vivo reveals rapid TCR clustering and internalization in response to antigen. **R.S. Friedman, P.J. Beemiller, C.M. Sorensen and M.F. Krummel.** UCSF. (33.13)
- 9:00 The role of Mad, Mnt and c-Myc proteins in OX40 stimulated T cells. **N.A. Vasilevsky and A. Weinberg.** Providence Portland Med. Ctr. and Oregon Hlth. & Sci. Univ. (33.26)
- 9:15 Dynamic $\alpha\beta$ T cell receptor quaternary structure is linked to its mechanosensor function. **S.T. Kim, K. Takeuchi, Z-Y.J. Sun, M. Touma, G. Wagner and E.L. Reinherz.** Dana-Farber Cancer Inst. and Harvard Med. Sch. (33.27)
- 9:30 Dynamic equilibrium of B7-1 dimers and monomers is important for regulation of TCR/CD28-mediated T cell activation. **S. Bhatia, S.C. Almo, S.G. Nathenson and R.J. Hodes.** NCI, NIH and Albert Einstein Col. of Med. (33.28)
- 9:45 MAGUK-controlled CARMA1 and BCL-10 turnover propose a new mechanism for NF- κ B inactivation in lymphocytes. **M.E. Moreno-Garcia, K. Sommer and D.J. Rawlings.** Seattle Children's Res. Inst. (33.31)

147. REGULATION OF IMMUNITY TO TUMORS

Block Symposium (Late-Breaking Abstracts)

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 610

CHAired: *S. GOLLNICK*

COCHAired: *E. DAVILA*

- 8:00 The role of CD11c⁺ hepatic dendritic cells in immune tolerance to hepatocellular carcinoma. **H. Zheng, D.M. Avella, T.D. Schell, Y. Jiang and K.F. Staveley-O'Carroll.** Penn State Col. of Med. (41.48)

- 8:15 Amplifying TLR2 signals in tumor-specific T cells lowers the activation threshold to a weakly immunogenic tumor antigen and enhances antitumor activity. **E. Davila, L. Zheng, D. Geng and N. Asproditis.** LSU Hlth. Sci. Ctr., New Orleans. (41.50)
- 8:30 Continuous intra-lymphatic dendritic cell infusion in patients with advanced melanoma. **P. Kalinski, H. Edington, C. Brown, T. Whiteside, L. Butterfield, D. Bartlett and J. Kirkwood.** Univ. of Pittsburgh. (41.51)
- 8:45 Photodynamic therapy elicited adaptive immunity is critically dependent on IL-17 bioactivity. **C. Brackett, P. Maier, K. Ramsey and S. Gollnick.** Roswell Park Cancer Inst. (41.56)
- 9:00 Gap-junction communication between autologous endothelial and tumor cells induce cross-recognition and elimination by specific CTL. **S. Chouaib and H. Benlalam.** INSERM U753, Villejuif. (41.58)
- 9:15 Tumor-associated antigen MUC1 contains self epitopes subject to self-tolerance and tumor-associated foreign epitopes that elicit effective immunity: important distinction for cancer vaccines. **S.O. Ryan, M.S. Turner, L. Revers, J. Gariely and O.J. Finn.** Univ. of Pittsburgh and Univ. of Toronto. (41.60)
- 9:30 Tumor IL-10 forms an immediate non-redundant blockade to CpG-induced activation of tumor-infiltrating DC and macrophages. **C.A. Stewart, L. Scheetz and G. Trinchieri.** NCI-Frederick and SAIC Frederick, MD. (41.61)
- 9:45 Mutant gp70 as a source of a novel CT26 tumour antigen, GSW11. **I.G. Bailey, E. Reeves, T. Elliott and E. James.** Univ. of Southampton, U.K. (41.46)

148. LYMPHOCYTE MIGRATION AND DEVELOPMENT

Block Symposium (Late-Breaking Abstracts)

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *M.E. GARCIA-OJEDA*

COCHAired: *T.P. BENDER*

- 8:00 Characterizing thymocyte migration in the medulla using two-photon microscopy. **E. Ladi, M. Le Borgne, Y.F. Liao and E. Robey.** Univ. of California Berkeley. (138.20)
- 8:15 T cell trans-endothelial migration and homing to lymph nodes rely on myosin-IIA mediated acto-myosin contractility. **J. Jacobelli, R.S. Friedman, M.A. Conti, O. Khan, C.M. Sorensen, R.S. Adelstein and M.F. Krummel.** UCSF and NHLBI, NIH. (94.25)
- 8:30 Chemoattractant receptors and lymphocyte egress from extralymphoid tissues: changing requirements during the course of inflammation. **G.F. Debes, M.N. Brown, S.R. Fintushel, J. Hay and E.C. Butcher.** Univ. of Pennsylvania, Univ. of Toronto, Stanford Univ. Sch. of Med. and VA Palo Alto Hlth. Care Syst. (94.21)
- 8:45 GATA-3 seals Notch-induced T cell commitment. **M.E. García-Ojeda, F. Lemaître, O. Richard-Le Goff, R.W. Hendriks, A. Cumano and J.P. Di Santo.** Sch. of Nat. Sci., Univ. of California Merced, INSERM U668, Inst. Pasteur, Paris and Erasmus MC Rotterdam. (46.1)
- 9:00 c-Myb is crucial for B-lymphocyte development. **T.P. Bender, D.M. Allman, K. Rajewsky and S.P. Fahl.** Univ. of Virginia Med. Sch., Univ. of Pennsylvania Sch. of Med. and Harvard Med. Sch. (138.30)
- 9:15 Nuclear factor TOX is required for lymph node organogenesis and NK cell development. **P. Aliahmad and J. Kaye.** The Scripps Res. Inst. and Cedars-Sinai Med. Ctr. (138.29)
- 9:30 Notch target gene deregulation and leukemogenesis occur independently of RBPJ in Ikaros null thymocytes. **S. Chari and S. Winandy.** Northwestern Univ., Chicago. (138.23)
- 9:45 Role of Ikaros in mast cell development and differentiation. **K.N. Rao, G.D. Gregory, S. Winandy and M.A. Brown.** Northwestern Univ. Feinberg Sch. of Med., Children's Hosp. of Philadelphia and Abramson Res. Ctr., Philadelphia. (138.21)

149. MICROBIAL AND VIRAL IMMUNOLOGY

Block Symposium (Late-Breaking Abstracts)

TUE. 8:00 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *C.C. BERGMAN*

COCHAired: *P. SALGAME*

- 8:00 Parenchymal expression of CD40 exacerbates liver injury in viral hepatitis. **S. Gupta, J. Yan, Y. Sun, T. Chan and J. Sun.** Univ. of Texas Med. Branch. (45.25)
- 8:15 Mucosal epithelial cells provide the critical link for dendritic cell-mediated amplification of HIV. **D.R. Fontenot, H.H. He, S. Hanabuchi, P.N. Nehete, Z-m. Ma, A.N. Courtney, C.J. Miller, S-C. Sun, Y-J. Liu and K.J. Sastry.** Univ. of Texas M.D. Anderson Cancer Ctr. and Univ. of California Davis. (45.19)
- 8:30 Cytolytic potentials of CD8⁺ T cells persisting in genital skin and mucosa after HSV-2 reactivation. **J. Zhu, K. Phasouk, T. Peng, A. Woodward, A. Klock and L. Corey.** Univ. of Washington and Fred Hutchinson Cancer Res. Ctr. (45.16)
- 8:45 PD-L1 expression in the CNS mitigates immune-mediated damage and morbidity at the cost of viral persistence. **T.W. Phares, R. Atkinson, S.A. Stohlman and C.C. Bergmann.** Cleveland Clin. Lerner Res. Inst. and Keck Sch. of Med., Univ. of Southern California. (45.5)
- 9:00 Treatment with a sphingosine analog diminishes immunopathology following influenza virus infection. **K.B. Walsh, D. Marsolais, D. McGavern, Y. Hatta, Y. Kawaoka, H. Rosen and M.B.A. Oldstone.** The Scripps Res. Inst. and Univ. of Wisconsin-Madison. (45.2)

- 9:15 A study of mycobacterial lipid antigen-specific responses in a novel model of human group 1 CD1. **K. Felio, H. Nguyen, C.C. Dascher, H-J. Choi, S. Li, M.I. Zimmer, M.B. Brenner and C-R. Wang.** Northwestern Univ., Univ. of Chicago and Brigham and Women's Hosp. (45.31)
- 9:30 Toll-like receptor 2: an important regulator of the *Mycobacterium tuberculosis* granuloma. **A.B. McBride and P. Salgame.** UMDNJ-New Jersey Med. Sch. (45.23)
- 9:45 Contrasting CTL responses in protective and non-protective models of malaria. **M. Gupta, A. Takagi, T.L. Richie, S.H. Kappe and R. Wang.** Seattle Biomed. Res. Inst. and Naval Med. Res. Ctr., Silver Spring, MD. (45.3)

150. INNATE IMMUNE RESPONSES AND HOST DEFENSE

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 615-616

CHAired: *J.F. HEDGES*

COCHAired: *Y. SHI*

- 10:15 Receptor-independent, lipid-dependent mechanism of Syk kinase activation in dendritic cells. **G. Ng, K. Sharma, S.M. Ward, M.D. Desrosiers, L.A. Stephens, M. Schoel, T. Li, C.A. Lowell, C-C. Ling, M.W. Amrein and Y. Shi.** Univ. of Calgary, Canada, Univ. of Kentucky and UCSF. (134.71)
- 10:30 Toll-like receptor 3 signaling on macrophages is required for survival following coxsackievirus B4 infection. **M.J. Richer, D.J. Lavallée, I. Shanina and M.S. Horwitz.** Univ. of British Columbia. (134.77)
- 10:45 Enhanced immunity following ingestion of plant-derived polysaccharides. **J.F. Hedges, K.M. Rask and M.A. Jutila.** Montana State Univ. (134.87)
- 11:00 STAT6 independent alternative activation of the pulmonary environment in response to helminth infection. **M.C. Siracusa, J.M. Craig, J.F. Urban, D. Artis and E.J. Pearce.** Univ. of Pennsylvania Sch. of Vet. Med., Johns Hopkins Sch. of Publ. Hlth. and USDA, Beltsville, MD. (134.78)
- 11:15 Impact of NADPH oxidase inhibition on influenza A virus-induced inflammation. **J.R. Patel, B.T. Christoph, S.F. Hussain, K.P. Vora, P. Ranjan, S. Sambhara and S. Gangappa.** Ctrs. for Dis. Control and Prevent. (134.80)
- 11:30 Generation of C4 binding protein deficient mice: evaluation of putative biological functions. **K. Soimo, J.E. Morales, S. Mueller-Ortiz, M. Nonaka, M. Nonaka, A.M. Blom and R.A. Wetsel.** Univ. of Texas-Houston, Univ. of Tokyo and Lund Univ., Sweden. (134.92)
- 11:45 The use of ENU-mutagenesis mouse model to study the role of IL-15 alternative splice variant in the control of herpes simplex virus-1 infection. **C-C. Ku, F-J. Yang, P-F. Chang, J-H. Wang, C-W. Yeh, M-L. Chang and J. Kung.** Col. of Med., Natl. Taiwan Univ., Mouse Mutagenesis Prog. Core Facility and Inst. of Molec. Biol., Acad. Sinica, Taipei. (134.85)
- 12:00 How caspase-7 controls intracellular infection in macrophages. **A. Amer, T-D. Kanneganti, S. Tridandapani and M. Wewers.** Ohio State Univ. and St Jude Children's Res. Hosp. (134.86)

151. PATHWAYS TO AUTOIMMUNITY

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 618-620

CHAired: *J.L. GROGAN*

COCHAired: *L.E. HARRINGTON*

- 10:15 MicroRNA-326 contributes to multiple sclerosis pathogenesis through promoting T_H17-cell differentiation. **C. Du, C. Liu, Z. Wu, Z. Li and G. Pei.** Shanghai Insts. for Biol. Sci., Chinese Acad. of Sci., Huashan Hosp., Shanghai Med. Col. of Fudan Univ. and Sch. of Life Sci. and Technol., Tongji Univ., People's Republic of China. (48.1)
- 10:30 Alternative splicing factor/splicing factor 2 regulates the expression of human T cell receptor CD3 ζ chain. **V.R. Moulton, M.A. Perl and G.C. Tsokos.** Beth Israel Deaconess Med. Ctr. (48.8)
- 10:45 Targeted depletion of lymphotoxin-alpha-expressing Th1 and Th17 cells inhibits autoimmune disease. **J.L. Grogan, E. Chiang, X. Yu and G. Kolumam.** Genentech Inc. (48.22)
- 11:00 TLR2 dependent activation of IL-6/IL-17 axis in the development of collagen-induced arthritis. **R. Ortmann, B. Sisk, A. Krogstad and K. Kannan.** Univ. of Arkansas for Med. Sci. (48.28)
- 11:15 Uptake of apoptotic dendritic cells by viable dendritic cells: a novel mechanism of inducing immune tolerance. **R. Kushwah, J. Wu, J.R. Oliver, G. Jiang, J. Zhang, K.A. Siminovitch and J. Hu.** Hosp. for Sick Children and The Samuel Lunenfeld Res. Inst., Toronto. (48.7)
- 11:30 Live imaging of peripheral T cell-DC interactions in the islets: an emerging axis of autoimmune infiltration. **R.S. Friedman, K. Melli, C.M. Sorensen, Q. Tang and M.F. Krummel.** UCSF. (48.15)
- 11:45 Chlorpromazine, procainamide and hydralazine produced a murine autoimmune disease resembling human lupus. **C. Wong-Baeza, L. España, A. Tescucano, C. Wong Ramirez and I. Baeza.** Natl. Polytech Inst., Mexico City. (48.31)
- 12:00 Regulation of effector CD4⁺ T cell functions by Tbet. **W-I. Yeh and L.E. Harrington.** Univ. of Alabama at Birmingham. (48.13)

152. LYMPHOCYTE DIFFERENTIATION

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 606-607

CHAired: *M. RAMASWAMY*

COCHAired: *N. KILLEEN*

- 10:15 Fas-induced apoptosis and restimulation-induced cell death is restricted to human effector memory CD4⁺ T subsets. **M. Ramaswamy, A.C. Cruz and R.M. Siegel.** NIAMS, NIH. (46.8)
- 10:30 Stability of peptide:MHCII complexes determines clonal CD4⁺ T-cell selection. **C. Hausl, A. Ferrante, J. Gorski and L. Malherbe.** BloodCtr. of Wisconsin. (46.4)
- 10:45 Route of infection determines T helper-1 versus T helper-17 subset differentiation. **J. Linehan, D. T, P. Cleary and M. Jenkins.** Univ. of Minnesota, Minneapolis. (46.9)
- 11:00 Bcl6 is required for the development of T follicular helper cells marked by downregulation of P-selectin glycoprotein ligand-1. **A.C. Poholek, S. Hernandez, A. Chandele, X. Dong, J. Odegard, S.M. Kaech, A.L. Dent and J.E. Craft.** Yale Univ. and Indiana Univ. Sch. of Med. (46.7)
- 11:15 Reduced c-myc expression levels limit follicular mature B cell cycling in response to TLR signals. **A.D. Bandaranayake, A. Meyer-Bahlburg, S.F. Andrews and D.J. Rawlings.** Univ. of Washington, Hannover Med. Sch. and Seattle Children's Res. Inst. (46.6)
- 11:30 Tracing memory T cell fate using Ox40-cre and novel reporter alleles. **M. Klinger, S.A. Chmura and N. Killeen.** UCSF. (46.17)
- 11:45 The mechanism of protection against influenza by transfer of Tc17, an IL-17 secreting CD8 T cell subset. **H. Hamada, M. de la Luz Garcia-Hernandez, J.B. Reome, S.K. Misra and R.W. Dutton.** Trudeau Inst. (46.5)
- 12:00 Self-reactive CTL reveal a strong focus of the CD8⁺ T cell receptor repertoire on self MHC. **S. Radhakrishnan, M. Hansen and L.R. Pease.** Mayo Clin. Col. of Med. (46.12)

153. TLRs AND TLR SIGNALING

Block Symposium

TUE. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 6A

CHAired: *R.L. MODLIN*

COCHAired: *D.M. UNDERHILL*

- 10:15 Anthrax lethal toxin enhances I kappa B kinase (IKK) activation and differentially regulates pro-inflammatory genes in human endothelium. **J.M. Warfel and F. D'Agnillo.** FDA, Bethesda and Georgetown Univ. Med. Ctr. (135.3)
- 10:30 TLR9 activation is an important mechanism of antigen-induced chronic lung inflammation. **T. Ito, M.A. Schaller, C.M. Hogaboam, N.W. Lukacs, S.W. Chensue and S.L. Kunkel.** Univ. of Michigan Med. Sch. and VA Ann Arbor Healthcare Syst. (135.19)
- 10:45 Detection of fungal particles by Dectin-1 triggers reorganization of macrophage membrane proteins to form a phagocytic synapse. **H.S. Goodridge, K.A. Wawrowsky, C.N. Reyes, J. Ma, A.J. Wolf, C.A. Becker, J.P. Vasilakos and D.M. Underhill.** Cedars-Sinai Med. Ctr. and Biothera, Eagan, MN. (134.35)
- 11:00 The mechanism of invariant NKT cell responses to viral danger signals. **A.J. Tyznik, E. Tupin, N.A. Nagarajan, M.J. Her, C.A. Benedict and M. Kronenberg.** La Jolla Inst. for Allergy & Immunol., Vironova AB, Nacka, Sweden and Univ. of California Berkeley. (134.8)
- 11:15 Structure and function of the activating receptor CLEC-2. **C.A. O'Callaghan, A.A. Watson, A.E. Fenton-May and C.M. Christou.** Univ. of Oxford. (134.10)
- 11:30 IFN- γ and IL-4 differentially regulate TLR-triggered induction of antimicrobial peptides by altering vitamin D metabolism. **K. Edfeldt, P.T. Liu, R. Chun, S.R. Krutzik, J.S. Adams, M. Hewison and R.L. Modlin.** David Geffen Sch. of Med. at UCLA. (135.49)
- 11:45 TLR7-induced protective CD8⁺ T cell immunity is mediated by a type I IFN and IL-12 co-dependent pathway. **J.Z.S. Oh and R.M. Kedl.** Univ. of Colorado Denver. (135.48)
- 12:00 TLR2 and TLR4 differentially regulate DC to stimulate Th17-associated cytokines in response to mycoplasma superantigen. **H. H. Mu, A. Hasebe and B. Cole.** Univ. of Utah Sch. of Med. (135.30)

154. TECHNOLOGICAL INNOVATIONS IN IMMUNOLOGY

Block Symposium

TUE. 10:15 AM—WASHINGTON STATE CONVENTION & TRADE CENTER, ROOM 608-609

CHAired: *M.B. GRISHAM*

COCHAired: *A.R. SALOMON*

- 10:15 Real time, single-cell characterization of basophilic exocytosis through carbon-fiber microelectrode amperometry. **Ö.H. Ersin, S. Ge and C.L. Haynes.** Univ. of Minnesota, Minneapolis. (42.1)
- 10:30 Ex vivo generation of gut-homing regulatory T cells: characterization and therapeutic evaluation in mice with established colitis. **M.B. Grisham, F. Karlsson, D.V. Ostanin, S. Jackson and L. Gray.** LSU Hlth. Sci. Ctr., Shreveport. (42.2)

- 10:45 PGC nanocarrier-formulated native GLP-1 prevents diabetes in NOD mice. **S. Reichstetter, L. Reed, M-S. Lai, G.M. Castillo and E.M. Bolotin.** PharmaIN, Seattle. **(42.3)**
- 11:00 Isolation of high affinity human scFv antibodies against mouse and human tumor endothelial marker 1 using yeast-display scFv library derived from an autoimmune patient. **A. Zhao, C. Li, G. Coukos, D.L. Siegel and N. Scholler.** Univ. of Pennsylvania. **(42.4)**
- 11:15 Quantitative phosphoproteomic dissection of immunological signaling pathways applied to mast cell and T cell signaling. **A.R. Salomon, V. Nguyen, N. Hung, L. Cao, J. Lung and K. Yu.** Brown Univ. **(42.5)**
- 11:30 Immunorepertoire analysis by multiplex PCR amplification and high throughput sequencing. **J. Han, C. Wang, C.M. Sanders, Q. Yang, E. Wang and B. Gharizadeh.** Hudson Alpha Inst. of Biotechnol., Huntsville, AL and Stanford Genome Technol. Ctr., Palo Alto. **(42.6)**
- 11:45 T regulatory and prostate cancer cell-specific drug targeting using novel XPclad[®] nanoparticles. **R. Singh, S. Singh, P.K. Sharma, J.W. Lillard and Jr.** Univ. of Louisville Sch. of Med. and Morehouse Sch. of Med. **(42.7)**