

FRIDAY BLOCK SYMPOSIA

3. CYTOKINE REGULATION IN IMMUNE CELLS Block Symposium

FRI. 2:00 PM—BCC ROOM 318-320

CHAIR: *T.M. Aune*

COCHAIR: *M.T. Cantorna*

- 2:00 Altered response of CD4⁺ T cells to TGF- β and IL-6 in the absence of the vitamin D receptor. **S. Yu and M.T. Cantorna.** Penn State Univ. (88.9)
- 2:15 Non-Coding RNA regulation of TNF α . **K. Sullivan, L. Song, A. Bagashev and M. Fitzgerald.** CHOP. (88.10)
- 2:30 Identification of an XBP-1-binding endoplasmic reticulum stress-responsive enhancer of IFN β transcription in macrophages. **J.A. Smith, Y. Liu, H. Chen, L. Qi and L. Zeng.** Univ. of Wisconsin, Madison and Cornell Univ. (88.11)
- 2:45 DNMT3a mediates lineage-specific, de novo DNA methylation at the ifng promoter and contributes to ifng gene silencing in Th2, Th17 and Treg cells. **R.M. Thomas, C.J. Gamper, J.D. Powell and A.D. Wells.** The Children's Hosp. of Philadelphia, Univ. of Pennsylvania and Johns Hopkins Univ. (88.15)
- 3:00 Lymphotoxin alpha gene polymorphism influences the cardiomyopathy development in chagas' disease patients. **V. Rodrigues, C.W. Pisseti, R.F. Oliveira and D. Correia.** Universidade Federal do Triângulo Mineiro, Brazil. (88.16)
- 3:15 Identification of a novel deubiquitinating enzyme DUBS6 that regulates Sirt6-mediated suppression of NF- κ B in T cells. **D. Fang and H. Yang.** Northwestern Univ. (88.17)
- 3:30 Regulation of CD20 in rituximab-resistant cell lines (RRCL) and B-cell non-Hodgkin's lymphomas (NHL). **P. Tsai, B. Naveen, S. Olejniczak, F.J. Hernandez-Ilizaliturri and M.S. Czuczman.** Roswell Park Cancer Inst. (88.18)
- 3:45 Cartilage remodeling genes on murine chromosome 15 involved in sex-affected pathways controlling the effector phase of arthritis. **V. Adarichev and E. Kudryavtseva.** Albert Einstein Col. of Med. (88.19)

4. EFFECTOR CELLS OF ALLERGIC DISEASE Block Symposium

FRI. 2:00 PM—BCC ROOM 308

CHAIR: *L.B. Schwartz*

COCHAIR: *T.J. Lin*

- 2:00 Regulation of IL-13 in mast cells by the Let-7 miRNA family. **C. Takemoto, C. Gamper, Y. Lee, J. Mendell, S. Brandal, J. Powell and M. McDevitt.** Johns Hopkins Univ. and Johns Hopkins Sch. of Med. (86.15)
- 2:15 Human pluripotent stem cells: a source of mast cells for the study of allergic and inflammatory diseases. **M. Kovarova, A.M. Latour, K.D. Chason, S.L. Tilley and B.H. Koller.** Univ. of North Carolina, Chapel Hill. (86.16)
- 2:30 Adenosine receptor A3AR is responsible for augmenting Fc γ RI-induced degranulation of human lung mast cells by extracellular adenosine. **G. Gomez and L.B. Schwartz.** Virginia Commonwealth Univ. (86.17)
- 2:45 Tyrosines in the carboxy-terminal region regulate Syk function. **R.O. Castro, J. Zhang, M.C. Jamur, C. Oliver and R.P. Siraganian.** Natl. Inst. of Dent. and Craniofacial Res., NIH and Fac. of Med. of Ribeirão Preto of the Univ. of São Paulo, Brazil. (86.18)
- 3:00 Basophils are transiently recruited into the draining lymph nodes during helminth infection via IL-3 but infection induced Th2 immunity can develop without basophil lymph node recruitment or IL-3. **B. Min, S. Kim, M. Prout, H. Ramshaw, A. Lopez and G. Le Gros.** Cleveland Clin. Fndn., Malaghan Inst. of Med. Res., New Zealand and Ctr. for Cancer Biol., Australia. (86.19)
- 3:15 Biomarkers of IgE- and IgG-dependent anaphylaxis. **M. Khodoun, R. Strait, L. Armstrong, N. Yanase, C. Perkins, C. Potter, D. Herbert and F.D. Finkelman.** Med. /Immunol., Univ. Cincinnati Col. of Med. and Cincinnati Children's Hosp. Med. Ctr. (86.20)
- 3:30 CCR3-mediated degranulation and eosinophil-associated RNases secretion from murine eosinophils; capacity of intact cells and free granules. **R. Shamri, R.C. Melo and P.F. Weller.** Beth Israel Deaconess Med. Ctr. And Federal Univ. of Juiz de Fora, Brazil. (86.21)
- 3:45 Expression of the human basophil (BASO) activation marker, CD63, may reflect the extent of degranulation by the AND (anaphylactic degranulation) mechanism. **D. MacGlashan.** Johns Hopkins Univ. (86.24)

5. HOST DEFENSE: INNATE IMMUNE MECHANISMS AND PROTECTIVE IMMUNITY

Block Symposium

FRI. 2:00 PM—BCC ROOM 307

CHAIR: *C. Feng*

COCHAIR: *D. Abraham*

2:00 IRF5 deficiency severely impairs the development of T helper 1 responses following *Leishmania donovani* infection. **S. Stager, A. Paun, T. Joshi and P.M. Pitha.** Johns Hopkins Sch. of Med. and Johns Hopkins Univ. (37.3)

2:15 TIPE2 serves as a molecular switch of phagocytosis during infection. **Z. Wang, D. Johnson, H. Sun, Y. Gus, S. Fayngerts, F. Xue, Q. Ruan and Y.H. Chen.** Univ. of Pennsylvania Sch. of Med. (37.12)

2:30 Blockade of triggering receptor expressed on myeloid cells (TREM) signalling during a primary influenza infection reduces susceptibility to secondary bacterial pneumonia. **G. Xin, E. Wissinger and T. Hussell.** Imperial Col. London, United Kingdom, Imperial Col. London and NHLI, United Kingdom. (37.21)

2:45 Intravital imaging of lymphocyte dynamics and signaling during immune response to *Listeria* infection in the spleen. **J.C. Waite, I. Leiner, P. Lauer, H. Zheng, C.S. Rae, D.A. Portnoy, E.G. Pamer and M.L. Dustin.** NYU Sch. of Med., Mem. Sloan Kettering Cancer Ctr., Aduro BioTech, MIT and Univ. of California, Berkeley. (37.31)

3:00 Proinflammatory cytokines and type I interferon are differentially induced by virulent and avirulent mycobacteria in human macrophages. **A.A. Novikov, R. Thompson, A. Sher and C. Feng.** NIAID, NIH. (37.36)

3:15 Intravital imaging of *Borrelia burgdorferi* and murine innate immune cells during early cutaneous infection. **J. Lavik, V. Shukla and R. Wooten.** Univ. of Toledo Hlth. Sci. Campus. (37.42)

3:30 Alternatively activated macrophages kill the parasitic nematode *Strongyloides stercoralis* in conjunction with neutrophils through two unique mechanisms. **S. Bonne-Annee, A.E. O'Connell, J. Hess and D. Abraham.** Thomas Jefferson Univ. (37.44)

3:45 IL-17 is essential for host defense against cutaneous *Staphylococcus aureus* infection. **J. Cho, E. Pietras, N. Garcia, R. Ramos, D. Farzam, H. Monroe, J. Magorien, A. Blauvelt, J. Kolls, A. Cheung, G. Cheng, R. Modlin and L. Miller.** UCLA, Oregon Hlth. and Sci. Univ., LSU Hlth. Sci. Ctr. and Dartmouth Med. Sch. (37.50)

6. T CELL DEVELOPMENT AND THYMIC ARCHITECTURE

Block Symposium

FRI. 2:00 PM—BCC ROOM 321-323

CHAIR: *J.M. Sen*

COCHAIR: *C-R. Wang*

2:00 Identifying chemokine receptor signals required for thymic settling. **D. Zlotoff, A. Sambandam, T.D. Logan, J.J. Bell, B.A. Schwarz and A. Bhandoola.** Univ. of Pennsylvania and Massachusetts Gen. Hosp. (36.26)

2:15 Direct comparison of Dll1- and Dll4-mediated Notch activation levels shows differential lympho-myeloid lineage commitment outcomes. **M. Mohtashami, D.K. Shah, H. Nakase, K. Kianizad, H.T. Petrie and J. Zúñiga-Pflücker.** Sunnybrook Res. Inst., Canada, Univ. of Toronto, Canada and Scripps Res. Inst. (36.27)

2:30 Extreme GATA-3 dose dependence in early T cell development. **D. Scripture-Adams, A. Arias, K.J. Elihu, I. Ho and E.V. Rothenberg.** California Inst. of Technol., UCLA and Brigham and Women's Hosp., Harvard Med. Sch. (36.28)

2:45 What goes up must come down: The consequences of not turning down pre-TCR induced β -catenin. **A. Sharma, Q. Yu and J. Misra Sen.** NIA, NIH. (36.29)

3:00 Dendritic cell expression of CD24 inhibits autoantigen-mediated deletion of T lymphocytes in the thymus. **X. Bai, J. Liu, X. Zhang, H. Reid, R. Boyd, M. Khattabi, H.Y. El-Omrani, P. Zheng and Y. Liu.** Ohio State Univ., Monash Univ., Australia and Univ. of Michigan. (36.30)

3:15 Phenotypic and functional characterization of group 1 CD1-restricted autoreactive T cells in a transgenic mouse model expressing human group 1 CD1 and a CD1b-specific T cell receptor. **S. Li, H. Choi, S. Shanmuganad and C. Wang.** Northwestern Univ. and Univ. of Chicago. (36.31)

3:30 Dkk1-mediated inhibition of Wnt Signaling in postnatal mice leads to loss of TEC progenitors and thymic degeneration. **M. Pezzano, M. Osada, L. Jardine, R. Misir, T. Andl and S.E. Millar.** City Col. of New York, Vanderbilt Univ. Med. Ctr. and Univ. of Pennsylvania. (36.32)

3:45 FoxN1 in K14 promoter-driven epithelium is required for generation and maintenance of 3D-thymus medulla and preventing nude phenotype in the skin. **J. Guo, M. Rahman, S. Zhang, Z. Zhang, A. Tvinnereim and D. Su.** Univ. of Texas Hlth. Sci. Ctr. at Tyler. (36.33)

SATURDAY BLOCK SYMPOSIA

11. CYTOKINES IN INFLAMMATORY RESPONSES

Block Symposium

SAT. 8:00 AM—BCC ROOM 309

CHAIR: *E.M. Lord*

COCHAIR: *D. Ganea*

8:00 IFN γ : an anti-inflammatory cytokine which inhibits dendritic cell migration and proinflammatory cytokine production. **J. Yen, W. Kong and D. Ganea.** Temple Univ. Sch. of Med. (35.1)

8:15 TNF-alpha decreases *Pseudomonas aeruginosa*-induced mortality in burned mice through negative regulation of IL-1beta. **L. Chen, P. Chen and C. Hsu.** Inst. of Emergency and Critical Care Med., Natl. Yang-Ming Univ., Taiwan, Kaohsiung Veterans Gen. Hosp., Taiwan and Natl. Sun Yat-Sen Univ., Taiwan. (35.2)

8:30 Dominance of macrophage-derived IFN- γ in atheromatous lesions. **R.M. El Sayed, M.M. El Shikh, H.A. Schenkein and J.G. Tew.** Virginia Commonwealth Univ. (35.3)

8:45 Inhibition of T cell proliferation decreases atherosclerotic lesion size revealing a role of IL-17 in mediating aortic CD11b+CD11c+ cell accumulation. **S. von Vietinghoff, E.K. Koltsova, J. Mestas and K. Ley.** La Jolla Inst. for Allergy and Immunol. (35.4)

9:00 Macrophage migration inhibitory factor promotes central nervous system pathology in a model of neuroinflammation. **G.M. Cox, J. Alexander, A. Kithcart, J. Williams, K. Smith, T. Shawler, A. Satoskar and C.C. Whitacre.** Ohio State Univ. (35.8)

9:15 Paneth cell activation after acute kidney injury causes liver and intestine injury and systemic inflammation in mice. **S. Park, M. Kim, S.W. Chen, K.M. Brown, J.K. Kolls and H. Lee.** Columbia Univ. and LSU Hlth. Sci. Ctr. (35.9)

9:30 Anti-inflammatory property of the cannabinoid receptor-2-selective agonist in spinal cord injury. **S. Adhikary, L. Hongbo, M. Skarica, R.F. Tuma and D. Ganea.** Temple Univ. (35.11)

9:45 Ectopic expression of Interleukin-22 receptors (IL-22R1) on lymphocytes induces multi-organ inflammation and premature death. **R. Savan, D.A. Reynolds, A.P. McFarland, L. Feigenbaum, K. Ramakrishnan, H. Shirota, D.M. Klinman, R.P. Donnelly and H.A. Young.** NCI, NIH and FDA. (35.12)

12. MOLECULAR MECHANISMS OF ANTIGEN PROCESSING AND PRESENTATION

Block Symposium

SAT. 8:00 AM—BCC ROOM 318-320

CHAIR: *R.J. Binder*

COCHAIR: *S. Sadegh-Nasseri*

8:00 Drug controlled antigen degradation defines sources of MHC class I peptides and enables pathway discovery. **B. Dolan, J.R. Bennink and J.W. Yewdell.** NIH. (130.29)

8:15 Ovalbumin-derived precursor peptides are transferred sequentially from gp96 and calreticulin to MHC I in the endoplasmic reticulum. **L.E. Kropp, M. Garg and R.J. Binder.** Univ. of Pittsburgh and Univ. of Connecticut. (130.26)

8:30 Influence of intermolecular disulfide bonds on assembly of mouse MHC class I molecules. **L.C. Simone, X. Wang, A. Tuli and J. Solheim.** Univ. of Nebraska Med. Ctr. and Harvard Med. Sch. (130.25)

8:45 Editing the pMHCI repertoire in the ER by tapasin and ERAAP. **T. Kanaseki, K. Camfield Lind and N. Shastri.** Univ. of California, Berkeley and Sapporo Med. Univ., Japan. (130.24)

9:00 The effects of HLA-DO on peptide binding by MHC Class II HLA-DR1. **Y.O. Poluektov, A. Kim, S. Khoruzhenko and S. Sadegh-Nasseri.** Johns Hopkins Univ. (130.14)

9:15 A Thr/Ser-based signal in the cytoplasmic tail regulates the functional expression of human CD1d following an HSV infection. **J. Liu, N. Glosson, W. Du, J. Gervay-Hague and R.R. Brutkiewicz.** Indiana Univ., Sch. of Med. and Univ. of California. (130.21)

9:30 Activation state and intracellular trafficking contribute to the repertoire of endogenous glycosphingolipids presented by CD1d. **K. Muindi, M. Cernadas, G.F. Watts, L. Royle, D.C. Neville, R.A. Dwek, G.S. Besra, P.M. Rudd, T.D. Butters and M.B. Brenner.** Brigham and Women's Hosp., Harvard Med. Sch., Oxford Glycobiology Inst., Univ. of Oxford, United Kingdom and Univ. of Birmingham, United Kingdom. (130.22)

9:45 T cell epitopes derived from autoantigens are selected differently than those from exogenous antigens. **A. Kim, I. Hartman, T. Boronina, R.N. Cole and S. Sadegh-Nasseri.** Johns Hopkins Univ. (130.15)

13. MUCOSAL IMMUNITY IN HOST DEFENSE AND AUTOIMMUNITY

Block Symposium

SAT. 8:00 AM—BCC ROOM 316-317

CHAIR: *D.W. Pascual*

COCHAIR: *Y. Cong*

8:00 Differentiation of Peyer's patch M cells does not require signals from B cells: evidence from a mouse model of acute antibody-mediated depletion of B cells.

K.A. Knoop, B.R. Butler, N. Kumar and I.R. Williams. Emory Univ. (90.1)

8:15 A small intestine trans-epithelial conduit system assists in lamina propria DC sampling. **J.R. McDole, L. Wheeler, R. Newberry and M. Miller.** Washington Univ. Sch. Of Med. (90.2)

8:30 Enterotoxigenic *E. coli* CFA/II fimbriae abate collagen-induced arthritis (CIA) via regulatory CD39+ T cells and IL-35. **I. Kochetkova, T. Thornburg, G. Callis, K. Crist and D.W. Pascual.** Montana State Univ. (47.1)

8:45 Microbiota antigen specific Th17 cells induce colitis and promote Th1 cell response through IL-17 induction of innate cell IL-12 and IL-23 production. **T. Feng, H. Qin, L. Wang, E.N. Benveniste, C.O. Elson and Y. Cong.** Univ. of Alabama at Birmingham. (47.3)

9:00 Generation of intestinal effector and memory CD8 T cells following oral *Listeria monocytogenes* infection. **B.S. Sheridan, E.R. Jellison and L. Lefrançois.** Univ. of Connecticut Hlth. Ctr. (46.1)

9:15 Conversion of conventional T cells to Tregs within the eye and the dual role of the vision related molecule, retinoic acid, in ocular immune privilege. **R. Zhou, R. Horai, M. Mattapallil, R. Rigden, R. Villasmil and R. Caspi.** NEI, NIH. (48.1)

9:30 Dendritic cell-expressed CD103 is required for inhibition of mucosal Th2 cell responses. **S.C. Mullaly, S. Maltby, K. Burrows, K.M. McNagny and C. Zaph.** Univ. of British Columbia, Canada. (90.3)

9:45 Essential role of membrane trafficking factor AP-1B in gut immune homeostasis. **D. Takahashi, K. Hase, S. Kimura and H. Ohno.** Yokohama City Univ., Japan and RIKEN, Japan. (90.4)

14. TUMOR IMMUNE RESPONSE

Block Symposium

SAT. 8:00 AM—BCC ROOM 308

CHAIR: *C.G. Drake*

COCHAIR: *N. Scholler*

8:00 The role of NFATc1 in tumor T cell responses to lung cancer. **S. Reppert, I. Boross, M. Koslowski, Ö. Türeci, H. Lehr, L. Glimcher and S. Finotto.** Univ. of Erlangen-Nürnberg, Germany, Univ. of Mainz, Institute of Molec. Med., Germany, Univ. of Mainz, III Med. Clin., Germany, Centre Hospitalier Universitaire Vaudois, Switzerland and Harvard Med. Sch. (101.6)

8:15 Ovarian tumor infiltrating B lymphocytes have pro angiogenic properties. **S. Nunez-Cruz, M. Guerra, D. Connolly, G. Coukos, P. Gimotty and N. Scholler.** Univ. of Pennsylvania and Fox Chase Cancer Ctr. (101.7)

8:30 Toll-like receptor agonists to the rescue: saving tumorspecific T-cells. **R. Srivastava, L. Zheng, D. Geng and E. Davila.** Stanley S. Scott Cancer Ctr. and LSU Hlth. Sci. Ctr. (101.8)

8:45 Cytotoxic chemotherapy rescues tumor-driven aberrant CD4+ T cell differentiation and restores an activated polyfunctional helper phenotype. **G. Zhou, Z. Ding, B. Blazar, A. Mellor and D. Munn.** Med. Col. of Georgia and Univ. of Minnesota. (101.9)

9:00 A phosphorylated β -catenin peptide that is presented by HLA-A2 generates strong phosphospecific T cell responses against melanoma. **R.C. Obeng, I.C. Le Poole, D.F. Hunt and V.H. Engelhard.** Univ. of Virginia and Loyola Univ. (101.10)

9:15 In vitro enhancing oxidative phosphorylation by rapamycin in proliferative CD8+ T cells during antigenic priming augments the generation of long-lived memory T cells in vivo. **S. He, K. Kato, J. Jiang, D. Wahl, S. Mineishi, S. Cui, G.D. Glick, D.M. Murasko and Y. Zhang.** Drexel Univ. and Univ. of Michigan. (101.11)

9:30 Role of human lymphocyte activation gene 3 in tumor infiltrating lymphocytes. **T. Bruno, K. Noonan, J.F. Grosso, N.M. Durham, M.V. Goldberg, D. Getnet, H. Yen, K. Pyle, I. Borrello, D. Pardoll and C.G. Drake.** Johns Hopkins Sch. of Med. and Sidney Kimmel Comprehensive Cancer Ctr. at Johns Hopkins. (101.12)

9:45 A distinct role of CD4+ Th17 and Th17-stimulated CD8+ CTL in induction of antitumor immunity and experimental autoimmune encephalomyelitis. **M. Ankathatti Munegowda and J. Xiang.** Univ. of Saskatchewan, Canada and Saskatoon Cancer Ctr., Canada. (101.5)

18. CD8 T CELL MEMORY AND PLASMA CELL RESPONSES

Block Symposium

SAT. 10:15 AM—BCC ROOM 307

CHAIR: *D.M. Allman*

COCHAIR: *D.A. Hildeman*

10:15 Bcl-2 maintains KLRG1^{low} CD127^{high} effector CD8⁺ and central memory CD8⁺ T cells by distinct mechanisms. **S. Kurtulus, P. Tripathi, A. Sholl and D. Hildeman.** Cincinnati Children's Hosp. and Univ. of Cincinnati Col. of Med. (132.9)

10:30 TSC2 regulates CD8⁺ T cell effector function and the generation of memory. **K. Pollizzi, A. Waickman, G. Delgoffe and J. Powell.** Johns Hopkins Sch. of Med. (132.14)

10:45 The A2A adenosine receptor regulates T cell effector and memory differentiation. **A. Waickman and J. Powell.** Johns Hopkins Sch. of Med. (132.13)

11:00 Homeostatic Proliferation (HP) induced CD8⁺ T cell memory is regulated by the energy sensitive kinase; mTOR. **Q. Li, R. Rao and P.A. Shrikant.** Roswell Park Cancer Inst. (132.17)

11:15 The bone marrow environment maintains polyfunctional memory T cells during human aging. **D. Herndler-Brandstetter, K. Landgraf, R. Brunauer, B. Jenewein, A. Tzankov, M. Keller, F. Kloss, R. Gassner, G. Lepperdinger and B. Grubeck-Loebenstein.** Inst. for Biomed. Aging Res., Austria, Univ. Hosp. Basel, Switzerland and Dept. of Cranio-Maxillofacial and Oral Surgery, Austria. (132.12)

11:30 Altered cellular organization of the splenic marginal zone in aged mice. **S.Z. Birjandi, J.A. Ippolito, A. Ramadorai and P.L. Witte.** Loyola Univ. Med. Ctr. (132.24)

11:45 T-independent antigens induce the formation of long-lived plasma cells. **A. Bortnick, W.J. Quinn III, M.P. Cancro and D. Allman.** Univ. of Pennsylvania. (132.18)

12:00 RANK-L expression marks long-lived plasma cells. **W.J. Quinn, W. Stohl, Y. Choi and M.P. Cancro.** Univ. of Pennsylvania Sch. of Med. and Univ. of Southern California Sch. of Med. (132.5)

19. EPIGENETIC REGULATION IN B AND T LYMPHOCYTES

Block Symposium

SAT. 10:15 AM—BCC ROOM 318-320

CHAIR: *Z. Zhang*

COCHAIR: *S.D. Fugmann*

10:15 Role of the 3' heavy chain enhancers in germline transcription and switch recombination. **W. Dunnick, J. Shi, C. Fontaine, J. Zerbato and J.T. Collins.** Univ. of Michigan and Smith Col. (88.1)

10:30 Identification of cis-regulatory elements targeting AID-mediated sequence diversification to the chicken immunoglobulin light chain gene. **N. Kothapalli, D.D. Norton and S.D. Fugmann.** NIA, NIH. (88.2)

10:45 The V(D)J recombination machinery is associated with the nuclear matrix. **M.D. Lange, W. Xie, S. Hong, Z. Yu, T. He, L. Huang, Y. Yu, K.M. Marran-Nichol, P.C. Swanson, R. Lu, K. Su and Z. Zhang.** Univ. of Nebraska Med. Ctr. and Creighton Univ. (88.3)

11:00 Developmental regulation of immunoglobulin CDR-H3 content through control of DH and JH usage in mice. **E. Szymanska, R.L. Schelonka, A.M. Vale, Y. Zhuang, G.L. Gartland and H.W. Schroeder, Jr.** Univ. of Alabama at Birmingham. (88.4)

11:15 Regulation of chromatin remodeling during thymocyte differentiation. **S. Dovat, C. Song, Z. Gurel, K.J. Payne and M. Popescu.** Univ. of Wisconsin, Madison and Loma Linda Univ. (88.5)

11:30 The chromatin remodeling landscape of T helper cell differentiation. **A. Wurster, S. De, P. Precht, W. Wood, K.G. Becker and M.J. Pazin.** NIA, NIH. (88.6)

20. IMMUNE REGULATION IN ALLERGY

Block Symposium

SAT. 10:15 AM—BCC ROOM 321-323

CHAIR: *D.H. Conrad*

COCHAIR: *A. Ray*

10:15 Glutamate signaling through the kainate receptor is critical for human B cell IgE production. **J.L. Sturgill and D. Conrad.** Virginia Commonwealth Univ. (91.9)

10:30 The role of IL-6 in T-bet (-/-) mice in an allergic asthma model. **S. Fassbender, C. Übel, L. Böhm, H. Lehr and S. Finotto.** Univ. of Erlangen-Nürnberg, Germany, Univ. of Mainz, Germany and Centre Hospitalier Universitaire Vaudois, Switzerland. (91.10)

10:45 Type I interferon reverses human Th2 commitment and stability by repressing GATA3. **J.P. Huber, H.J. Ramos, M.A. Gill and J.D. Farrar.** Univ. of Texas Southwestern Med. Ctr. (91.11)

11:00 Identification, phenotype, migration, and function of c-kit-expressing dendritic cells in vivo. **T.B. Oriss, N. Krishnamoorthy, S.L. Poe, M. Yarlagadda, Z. Qi, P. Ray and A. Ray.** Univ. of Pittsburgh. (91.12)

11:15 Mast cells expression of the ADAM-10 protease is inhibited by IL-10 and TGF β 1. **J. Ryan, B. Vance, K. Williams and J. Morales.** Virginia Commonwealth Univ. (91.13)

11:30 Cleavage of CD23 by ADAM proteins is regulated by beta-2 adrenergic receptor stimulation on B cells. **C. Pedro and V.M. Sanders.** Ohio State Univ. (91.14)

11:45 Roles of TSLP in diverting airway tolerance to Th2 sensitization. **B. Zhou, L. Lei and Y. Zhang.** Indiana Univ. Sch. of Med. (91.6)

12:00 HVEM-LIGHT interactions promote generation of memory Th2 cells that mediate lung inflammation. **P. Soroosh, T. Doherty, T. So, S. Fukuyama, C. Ware and M. Croft.** La Jolla Inst. for Allergy and Immunol. and UCSD. (91.8)

21. TUMOR IMMUNE ESCAPE

Block Symposium

SAT. 10:15 AM—BCC ROOM 309

CHAIR: *J.L. Riley*

COCHAIR: *D.E. Kaplan*

10:15 Cancer cells utilize a novel regulatory subset of B cells to promote escape and metastasis. **P.B. Olkhanud, B. Damdinsuren, R. Sen, R. Gress and A. Biragyn.** NIA, NIH. (100.26)

10:30 Identification of an inhibitory ganglioside responsible for immune suppressive effects associated with ovarian cancer. **M. Oelke, T. Webb, R. Giuntoli II, P. Lopez, X. Li, R. Schnaar, M. Tsuji and J. Schneck.** Johns Hopkins Sch. of Med., Sidney Kimmel Comprehensive Cancer Ctr., Rockefeller Univ. and Univ. of Maryland Sch. of Med. (100.27)

10:45 Tumor microenvironments direct the recruitment and expansion of human Th17 cells. **G. Peng, X. Su, J. Ye, E. Hsueh, Y. Zhang and D. Hoft.** St. Louis Univ. (100.28)

11:00 Advanced liver disease due to hepatitis C infection is associated with reduced CD19+CD27+ memory B cells. **D.E. Kaplan, T.K. Iyer, E. Carpenter and R.H. Vonderheide.** Philadelphia VAMC and Univ. of Pennsylvania. (100.29)

11:15 Cancer-induced immunostimulatory CD11b+Gr-1+ cells. **T. Shin, M. Guo, T.J. Curiel and K. Tomihara.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio (UTHSCSA) and Cancer Therapy and Res. Ctr. (CTRC). (100.30)

11:30 Inflammation-induced myeloid-derived suppressor cells have enhanced resistance to apoptosis. **O.Y. Chornoguz, L. Grmail, P. Sinha, K. Artemenko, R. Zubarev and S. Ostrand-Rosenberg.** Univ. of Maryland, Baltimore County and Uppsala Univ., Sweden. (100.31)

11:45 Immunosuppressive ovarian cancer-infiltrating dendritic cells can be transformed into immunostimulatory cells through in situ CD40 and toll-like receptor 3 stimulation. **U.K. Scarlett, J.R. Cubillos-Ruiz, Y.C. Nesbeth, D.G. Martinez, J. Fields, A.T. Gewirtz, C.L. Ahonen and J.R. Conejo-Garcia.** Dartmouth Col. and Emory Univ. (100.32)

12:00 Tumor-derived mesenchymal stem cells enhance tumor development via nitric oxide. **G. Ren, L. Zhang, T. Wen, X. Zhao, Z. Yuan, J. Zhang, W. Ling, A. L'huillie, C. Shao and Y. Shi.** Robert Wood Johnson Med. Sch. UMDNJ and Rutgers, The State Univ. of New Jersey. (100.33)

25. AUTOIMMUNITY: EFFECTOR CELLS AND MECHANISMS OF TISSUE DAMAGE

Block Symposium

SAT. 1:45 PM—BCC ROOM 321-323

CHAIR: *R.R. Singh*

COCHAIR: *D.L. Farber*

1:45 Dendritic cells in the skin of autoimmune mice display an inability to migrate: a novel mechanism and role in skin inflammation. **A.U. Eriksson, P.J. Kim, J.K. King, C. Okereke and R.R. Singh.** UCLA. (135.12)

2:00 Tissue tropism of autoreactive memory CD4 T-cells. **J.R. Lees and D.L. Farber.** Univ. of Maryland, Baltimore. (135.30)

2:15 Exaggerated IL-23-induced psoriasis-like inflammation in mice lacking CCR4. **M. Hedrick, H. Zhang and J.M. Farber.** NIAID, NIH. (135.32)

2:30 Interleukin-17A is dispensable for myocarditis but essential for the progression to dilated cardiomyopathy. **G.C. Baldeviano, J.G. Barin, M. Talor, S. Srinivasan, P. Chen, D. Bedja, D. Zheng, K. Gabrielson, Y. Iwakura, N.R. Rose and D. Cihakova.** Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Publ. Hlth. and Univ. of Tokyo, Japan. (135.25)

2:45 Genetic ablation of steroid receptor coactivator-3 promotes PPAR- α -mediated alternative activation of microglia in experimental autoimmune encephalomyelitis. **Y. Zhang and Y. Xiao.** Shanghai Jiao Tong Univ. Sch. of Med., China. (135.1)

3:00 IP-10-dependent terminal differentiation of human plasma cells: an implication for autoimmunity. **W. Xu, M. Dullaers, V. Pascual, S. Oh and J. Banchemereau.** Baylor Inst. for Immunol. Res. (135.5)

3:15 Memory B cells from relapsing remitting multiple sclerosis patients elicit functional responses by CD4⁺ T cells in response to neuro-antigens. **N. Monson, C.T. Harp, S.J. Ireland, L.S. Davis, B. Cassidy, P.D. Cravens, O. Stuve, A.E. Lovett-Racke, T.N. Eagar, B.M. Greenberg, M.K. Racke, L.G. Cowell, N.J. Karandikar and E.M. Frohman.** Univ. of Texas Southwestern Med. Ctr., VA North Texas Hlth. Care Systems, Ohio State Univ. Med. Ctr. and Duke Univ. (135.24)

3:30 Chronic stimulation of the DNA repair enzyme DNA-PKcs impairs T-cell survival in rheumatoid arthritis (RA). **L. Shao, J.J. Goronzy and C.M. Weyand.** Stanford Univ. (135.7)

26. IMMUNITY TO INFLUENZA VIRUS INFECTIONS

Block Symposium

SAT. 1:45 PM—BCC ROOM 310

CHAIR: *P.G. Thomas*

COCHAIR: *T.S. Kim*

1:45 Antigen persistence and the control of local T cell memory by migrant respiratory dendritic cells following acute virus infection. **T.S. Kim, M.T. Hufford, J. Sun and T.J. Braciale.** Univ. of Virginia. (92.11)

2:00 The role of CCR7 in CD8 T cell egress from the lung during influenza A virus infection. **S.G. Jenrich.** Univ. of Pennsylvania Sch. of Vet. Med. (92.17)

2:15 Influenza A infection enhances cross-priming of CD8⁺ T cells to cell-associated antigens in a TLR7- and type I interferon-dependent fashion. **W. Chen, J. Wei, J. Waithman, R. Lata, N.A. Mifsud, J. Cebon, T. Kay, M.J. Smyth and A.J. Sadler.** Ludwig Inst. for Cancer Res., Australia, St. Vincent's Inst. of Med. Res., Australia, Peter MacCallum Cancer Centre, Australia and Monash Inst. of Med. Res., Australia. (92.6)

2:30 Development and differentiation of memory CD8⁺ T cells in influenza infection. **J. Rutigliano, M.Y. Morris, P.C. Doherty and P.G. Thomas.** St. Jude Children's Res. Hosp. (92.25)

2:45 Inhibiting the inflammatory response following influenza virus infection utilizing sphingosine-1-phosphate receptor 1 signaling. **J.R. Teijaro, K.B. Walsh, H. Rosen and M.B. Oldstone.** Scripps Res. Inst. (92.4)

3:00 The role of different virus-specific effector memory T-cell subsets in response to influenza A/H3N2 and pandemic A/H1N1 strains in older compared to young adults. **X. Zhou and J.E. McElhaney.** Univ. of Connecticut Hlth. Ctr. (92.2)

3:15 Altering hemagglutinin binding to B cells modulates original antigenic sin responses to influenza viruses. **R. Powers, J.H. Kim, D. Steinhauer and J. Jacob.** Emory Vaccine Ctr., Yerkes Natl. Primate Res. Ctr. and Emory Univ. (92.23)

3:30 Development and maintenance of antiviral antibody secreting cells in response to influenza virus infection. **A.I. Wolf, K. Mozdzanowska, M.H. Metzgar, W.J. Quinn, R.J. Bram, M.P. Cancro and J. Erikson.** Wistar Inst., Univ. of Pennsylvania and Mayo Clin., Col. of Med. (92.3)

27. REGULATION OF B CELLS AND ANTIBODY RESPONSES

Block Symposium

SAT. 1:45 PM—BCC ROOM 318-320

CHAIR: *G.A. Bishop*

COCHAIR: *B.B. Blomberg*

1:45 CD40 signaling regulates both adaptive and innate immune receptors through TRAF degradation. **J.P. Graham and G.A. Bishop.** Univ. of Iowa and VA. (84.3)

2:00 Kinetic and function of c-Rel in naïve B cells. **B. Damdinsuren, R. Grumont, Y. Zhang, W.H. Wood, K.G. Becker, S. Gerondakis and R. Sen.** NIA, NIH, NIH, Burnet Inst., Australia and RRB, NIA, NIH. (84.4)

2:15 Fc receptor-like 5 has dominant inhibitory function in B cells that is mediated via Lyn and SHP-1. **Z. Zhu and R.S. Davis.** Univ. of Alabama at Birmingham. (84.5)

2:30 Regulation of immunoglobulin secretion during adaptive immunity. **S. Jones and B.J. Vilen.** Univ. of North Carolina, Chapel Hill. (84.17)

2:45 Inhibition of cyclooxygenase-2 activity impairs antibody production in human B cells and in mice infected with vaccinia virus. **R.P. Phipps, S. Bancos, D. Topham, T. Chapman and M. Bernard.** Univ. of Rochester, Sch. of Med. and Dent. (84.8)

3:00 Cathelin-Related Antimicrobial Peptide (CRAMP) regulates B cell IgG1 production. **Y. Chen, N.W. Kin and J.F. Kearney.** Univ. of Alabama at Birmingham. (84.13)

3:15 Pax5 and E47 regulate AID and class switch recombination in young and aged BALB/c mice. **A. Landin, D. Frasca, P.T. Harrison, M.F. Scallan, J.R. Hagman and B.B. Blomberg.** Sch. of Life Sci., Univ. Col. Cork, Ireland, Univ. of Miami Miller Sch. Of Med., and Natl. Jewish Hlth. (84.6)

3:30 Mice lacking IgA exhibit defective IgG antibody responses to polysaccharide conjugate vaccine. **J.H. Wilson-Welder, G.S. Kirimanjeswara and D.W. Metzger.** Albany Med. Col. (84.14)

28. TFH, TH9, AND TH2 DIFFERENTIATION

Block Symposium

SAT. 1:45 PM—BCC ROOM 324-326

CHAIR: *S. Crotty*

COCHAIR: *P.L. Schwartzberg*

1:45 Roles of Bcl6 and Blimp1 in CD4 T follicular helper (Tfh) lineage commitment. **D. DiToro, R.J. Johnston and S. Crotty.** La Jolla Inst. for Allergy and Immunol. And UCSD. (99.11)

2:00 Human T follicular helper cells comprise subsets specialized for help of distinct B cell subsets. **S. Bentebibel, N. Schmitt, R. Morita, J. Banachreau and H. Ueno.** Baylor Inst. for Immunol. Res. and Mount Sinai Sch. of Med. (99.9)

2:15 SLAM-associated protein (SAP)-deficiency impedes the function of T follicular helper cells in germinal center formation. **K.T. Lu, J.L. Cannons, Y. Kanno, J.J. O'Shea and P.L. Schwartzberg.** NHGRI, NIH and NIAMS, NIH. (99.3)

2:30 PU.1 is required for generating the IL-9-producing Th9 phenotype. **W. Yao, R.S. Tepper and M.H. Kaplan.** Indiana Univ. Sch. of Med. (99.10)

2:45 CD4+ recent thymic emigrants are biased to the Th2 lineage. **D.W. Hendricks and P.J. Fink.** Univ. of Washington. (99.14)

3:00 Requirement of voltage-gated calcium (Cav) channels in T cell receptor-mediated calcium response and effector functions of T lymphocytes. **M.K. Jha, A. Badou and R.A. Flavell.** Yale Sch. of Med. (99.13)

3:15 Dec2 regulates initial TH2 lineage commitment. **X. Yang, P. Angkasekwini, J. Zhu, J. Peng, Z. Liu, R. Nurieva, X. Liu, Y. Chung, S. Chang, B. Sun and C. Dong.** MD Anderson Cancer Ctr., Thammasat Univ., Thailand, NIAID, NIH, Wuhan Univ., China and Inst. of Biochemistry and Cell Biol., Chinese Acad. of Sci., China. (99.12)

3:30 Elf3 regulates dendritic cell driven T cell differentiation. **R. Kushwah, J. Wu, J.R. Oliver and J. Hu.** Hosp. for Sick Children, Canada and Univ. of Toronto, Canada. (99.1)

SUNDAY BLOCK SYMPOSIA

56. CHEMOKINES AND THEIR RECEPTORS IN HEALTH AND DISEASE

Block Symposium

SUN. 8:00 AM—BCC ROOM 318-320

CHAIR: *J.W. Lillard*

COCHAIR: *S.S. Watowich*

8:00 The DRF motif in CXCR6 is important for selectivity among G-proteins in receptor signaling, which is cell-type specific. **S.P. Singh, J.F. Foley, H.H. Zhang and J.M. Farber.** NIAID, NIH. (133.1)

8:15 STAT3 controls the neutrophil migratory response to CXCR2 ligands by direct activation of G-CSF-induced CXCR2 expression and via modulation of CXCR2 signal transduction. **H. Nguyen-Jackson, A.D. Panopoulos, H. Zhang, H.S. Li and S.S. Watowich.** Univ. of Texas MD Anderson Cancer Ctr. and Salk Inst. for Biol. Studies. (133.2)

8:30 Role of CXCL12 and its receptor, CXCR4, in diversification of the rabbit primary antibody repertoire. **D.K. Lanning and K.L. Knight.** Loyola Univ. Chicago. (133.3)

8:45 A novel pro-survival and proliferation-inducing role for CCR4:TARC interaction in chronic lymphocytic leukemia (CLL) B cells. **R. Damle, S. Temburni, F. Malavasi, M.S. Kaufman, J.E. Koltz, S.L. Allen, K.R. Rai and N. Chiorazzi.** Feinstein Inst. for Med. Res., North Shore Univ. Hosp., Long Island Jewish Med. Ctr., Albert Einstein Col. of Med., NYU Sch. of Med. and Univ. of Turin, Italy. (133.4)

9:00 CD38 modulates CXCR4-mediated signals and homing of chronic lymphocytic leukemia (CLL) cells. **T. Vaisitti, S. Aydin, D. Rossi, F. Cottino, V. Audrito, S. Serra, G. D'Arena, P. Brennan, C. Pepper, G. Gaidano, F. Malavasi and S. Deaglio.** Univ. of Torino, Italy, Amedeo Avogadro Univ. of Eastern Piedmont, Italy, IRCCS "Casa Sollievo della Sofferenza" Hosp., Italy and Cardiff Univ., United Kingdom. (133.5)

9:15 CXCR6 mediates migration and invasion of breast cancer cells in a Src, FAK, and ERK1/2 dependent fashion. **A.S. Triplett, P.K. Sharma, R. Singh, J.W. Lillard and S. Singh.** Univ. of Louisville and Morehouse Sch. of Med. (133.6)

9:30 Role of CCR9-CCL25 axis in prostate cancer metastasis. **S. Singh, P.K. Sharma, R. Singh and W.E. Grizzle.** Univ. of Louisville Sch. of Med., Morehouse Sch. of Med. and Univ. of Alabama at Birmingham. (133.7)

9:45 CXCL13 inhibition prevents bone metastasis in hormonerefractory prostate cancer. **J.W. Lillard, R. Singh, P.K. Sharma and S. Singh.** Morehouse Sch. of Med. and Univ. of Louisville. (133.8)

57. INNATE AND ADAPTIVE IMMUNITY IN AQUATIC ANIMAL MODELS

Block Symposium

SUN. 8:00 AM—BCC ROOM 314

CHAIR: *S.M. Barratt-Boyes*

COCHAIR: *J. Robert*

8:00 Phylogenetic and developmental study of CD4, CD8 α and CD8 β T cell co-receptor homologs in two amphibian species, *Silurana (Xenopus) tropicalis* and *Xenopus laevis*. **A.S. Chida, A. Goyos and J. Robert.** Univ. of Rochester Med. Ctr. (43.5)

8:15 Evidence for somatic hypermutation at shark T cell Receptor α locus. **M.F. Criscitiello, J.O. Eubanks, A.B. Coots and M.F. Flajnik.** Texas A&M Univ. and Univ. of Maryland Sch. of Med. (43.6)

8:30 An Fc μ R expressed by channel catfish, *Ictalurus punctatus*, clonal CTL mediates inhibitory effector functions and recruits SHIP. **D.K. Nayak, M. Wilson and E. Bengtén.** Univ. of Mississippi Med. Ctr. (43.7)

8:45 Roles of MHC class Ia and class Ib in hsp70 mediated anti-tumor responses in the frog *Xenopus*. **H. Nedelkowska, A. Goyos, D. Easterhoff, S. Maggirwar and J. Robert.** Univ. of Rochester Med. Ctr. (43.11)

9:00 IgD-bearing B cell populations in the channel catfish, *Ictalurus punctatus*. **E.I. Edholm, M. Sahoo, E. Bengten and M. Wilson.** Univ. of Mississippi Med. Ctr. (43.17)

9:15 Analysis of the assembly mechanism for multimeric lamprey VLRB antibodies. **J. Li, B.R. Herrin, P. Guo and M.D. Cooper.** Emory Univ. (43.19)

9:30 Transducing the affinity of antigen recognition into graded structural modifications of the antibody product. **S. Kaattari, J. Ye and E. Bromage.** Virginia Inst. of Marine Sci. and Dept. of Biol., Univ. of Massachusetts. (43.21)

9:45 Innate and adaptive immune defenses against a fungus linked to global amphibian declines in the South African clawed frog, *Xenopus laevis*. **J.P. Ramsey, L.K. Reinert, L.K. Harper, D.C. Woodhams and L.A. Rollins-Smith.** Vanderbilt Univ. and Univ. of Zurich, Switzerland. (43.24)

58. NEW THERAPEUTIC TARGETS IN AUTOIMMUNITY

Block Symposium

SUN. 8:00 AM—BCC ROOM 310

CHAIR: *G.G. Illei*

COCHAIR: *S.D. Miller*

8:00 Single dose nasal immunotherapy rapidly recruits NK cell dependent regulatory T (T_{reg}) cells into central nervous system (CNS) to ameliorate experimental autoimmune encephalomyelitis (EAE). **E. Huarte, A. Rynda, M. Maddaloni, C. Riccardi and D.W. Pascual.** Montana State Univ. (96.12)

8:15 atRA restores the stability and functionality of nTregs in the inflammatory milieu. **S. Zheng, L. Kong, X. Zhou, J. Wang, W. Shi, D. Brand, H. Fan, Z. Liu and H. Zou.** USC, Fudan Univ. Huashan Hosp., China, Tongji Univ. Med. Sch., Shanghai East Hosp., China and VAMC. (96.17)

8:30 Therapeutic effect of lithium in EAE: effects on dendritic cells and encephalitogenic activity of T cells. **A.L. Buel, R. Naves, T. Mbana, C. Raman and P. De Sarno.** Univ. of Alabama at Birmingham. (96.16)

8:45 CXCR7 antagonism prevents leukocyte trafficking into the central nervous system and treats ongoing disease during experimental autoimmune encephalomyelitis. **L. Cruz-Orengo, D. Holman, M. Wright, D. Dorsey and R.S. Klein.** Washington Univ. Sch. of Med. (96.5)

9:00 B-cell delivered gene therapy for tolerance in EAE: role of antigen-specific B cells. **A. Zhang, O. Onabajo, Y. Su, J. Skupsky and D.W. Scott.** Univ. of Maryland Sch. of Med. (96.27)

9:15 A novel highly specific small molecule inhibitor for BTK suppresses Fc receptor function in macrophages and prevents inflammatory arthritis. **K. Reif, T. Huang, J. Barbosa, S. Hymowitz, S.L. Gallion, V. Hurez, P.M. Maciejewski, G. Dennis Jr., H. Rong, F. Shen, L. Diehl, L.E. DeFroge, W.P. Lee, M. Balazs, K. Currie and J. DiPaolo.** Genentech and CGI Pharmaceuticals. (96.18)

9:30 Efalizumab down-regulates CD25 expression on FOXP3+ regulatory T cells and exacerbates the autoimmunity in primary Sjogren's syndrome. **D. Tran, L. Bebris, E.M. Shevach and G. Illei.** Univ. of Texas Med. Sch. at Houston, NIDCR, NIH and NIAID, NIH. (96.4)

9:45 Protection against lupus nephritis in MRL-lpr mice expressing a natural autoantibody transgene. **Q.C. Chen, K. Manno and A. Matejuk.** Univ. of Maryland. (143.39)

59. REGULATION OF ADAPTIVE IMMUNITY DURING

MICROBIAL INFECTION

Block Symposium

SUN. 8:00 AM—BCC ROOM 309

CHAIR: *K.M. Khanna*

COCHAIR: *M. Croft*

8:00 Role of sphingosine-1-phosphate receptor 1 in effector CD8 T cell migration. **K.M. Khanna, D. Xu and B. Rudenga.** Univ. of Connecticut Hlth. Ctr. (137.15)

8:15 Intravital 2P-imaging reveals anti-viral CTL mediate fatal pathology by recruiting myelomonocytic cells. **D.B. McGavern, S. Kang, J. Kim and M. Dustin.** NIH and NYU Sch. of Med. (137.17)

8:30 Immune molecular plasticity links viral virulence to protective T cell vaccines. **S. Salek-Ardakani, R. Flynn, R. Arens, H. Yagita, G. Smith, J. Borst, S. Schoenberger and M. Croft.** La Jolla Inst. for Allergy and Immunol., Imperial Col. London, United Kingdom, Netherlands Cancer Inst., Netherlands and Juntendo Univ., Japan. (137.2)

8:45 *T. cruzi* interference with host cell membrane integrity triggers the release of plasma membrane-derived vesicles: a mechanism for entry into mammalian cells. **E.A. Ansa-Addo and J.M. Inal.** Fac. of Life Sci., Sch. Of Human Sci., London Metropolitan Univ., United Kingdom. (137.1)

9:00 Prolonged antigen presentation is required for optimal CD8+ T cell responses against malaria liver stage parasites. **I.A. Cockburn, Y. Chen, M.G. Overstreet, J.R. Lees, D.L. Farber and F. Zavala.** Johns Hopkins Sch. of Publ. Hlth. and Univ. of Maryland, Baltimore. (137.16)

9:15 The kinetics of B-cell trafficking and long-term maintenance in the CNS induced by Sindbis virus infection. **T. Metcalf and D.E. Griffin.** Johns Hopkins Univ. Bloomberg Sch. of Publ. Hlth. and Johns Hopkins Univ. Sch. of Med. (39.14)

9:30 Downregulation of TAC1 by *Neisseria meningitidis* type C polysaccharide vaccine is responsible for its weak immunogenicity. **M. Akkoyunlu, N. Katsenelson, M.S. Blake and S. Kanswal.** FDA/CBER. (137.4)

60. ITREG, TH17, AND CD4 CTL DIFFERENTIATION

Block Symposium

SUN. 8:00 AM—BCC ROOM 316-317

CHAIR: *M.L. Alegre*

COCHAIR: *J.C. Rathmell*

8:00 High doses of TCR stimuli prevent conversion of naïve CD4+ T cells into iTregs in an NF- κ B-dependent manner. **L. Molinero and M. Alegre.** Univ. of Chicago. (139.10)

8:15 Estrogen-related receptor- α is a global metabolic and fate determinant for T lymphocytes. **R.D. Michalek, S.R. Jacobs, C. Chang, O. Ilkayeva, N.J. Maciver, R.G. Jones, V. Giguere, D.P. McDonnell and J.C. Rathmell.** Duke Univ. Med. Ctr. and McGill Univ., Canada. (139.8)

8:30 Regulatory T cell hybridoma reveal novel Foxp3 inducing factors. **R. Sharma, A.C. Ju, S.J. Sung and S.T. Ju.** Univ. of Virginia. (139.7)

8:45 PKC- θ mediates negative feedback on regulatory T cell function. **A. Zanin-Zhorov, Y. Ding, S. Kumari, M. Attur, K. Hippen, M. Brown, B. Blazar, S. Abramson, J. Lafaille and M. Dustin.** Helen and Martin Kimmel Ctr. for Biol. and Med., Skirball Inst. of Biomolecular Med., NYU Sch. of Med., NYU Hosp. for Joint Dis., Univ. of Minnesota Cancer Ctr. and Boehringer Ingelheim. (139.1)

9:00 SHP-1 negatively regulates Th17 cell development. **I.S. Mauldin and U. Lorenz.** Univ. of Virginia. (139.6)

9:15 Notch signaling regulates human and mouse TH17 development. **S. Keerthivasan, R. Suleiman, C.I. Le Poole, B.J. Nickoloff, B. Osborne and L. Miele.** Loyola Univ. Med. Ctr., Univ. of Massachusetts and Univ. of Mississippi. (139.13)

9:30 Role of Krüppel-like factor 4 (Klf4) in regulation of T cell number and TH-17 differentiation. **J. An, S. Golech, J. Klaewongkram, G. Huston, W.H. Wood, Y. Zhang, R.P. Wersto, K.G. Becker, S.L. Swain and N. Weng.** NIA, NIH and Trudeau Inst. (139.12)

9:45 IL-2 induces perforin-mediated cytotoxicity in CD4 cells via STAT5 signaling. **D.M. Brown, J.M. Canfield, S. Lee and S.A. Condon.** Univ. of Nebraska, Lincoln. (139.9)

64. CANCER IMMUNOTHERAPY

Block Symposium

SUN. 10:15 AM—BCC ROOM 316-317

CHAIR: *J.R. Conejo-Garcia*

COCHAIR: *A.A. Hurwitz*

10:15 Naïve tumor-specific CD4+ T cells differentiated in vivo eradicate established melanoma. **P.A. Antony, Y. Xie, A. Akpinarli, C. Maris, E. Hipkiss, M. Lane, E.M. Kwon, P. Muranski and N. Restifo.** Univ. of Maryland Sch. of Med., NCI, NIH, NIAID, NIH and Johns Hopkins Univ. (131.12)

10:30 In vivo administration of artificial antigen presenting cells licenses low avidity T cells for treatment of cancer. **M. Oelke, S. Ugel, A. Zoso, C. De Santo, Y. Li, I. Marigo, P. Zanollo, E. Scarselli, B. Cipriani, V. Bronte and J. Schneck.** Johns Hopkins Univ., Università degli Studi de Padova, Italy, Istituto Oncologico Veneto, Italy and Ricerca Biologia Molecolare, Italy. (131.13)

10:45 Adoptive co-transfer of tumor-specific CD4+ T cells awakens host protective immunity to MHC-II ovarian cancer through CD40-mediated licensing of dendritic cells and CCL5 secretion. **Y.C. Nesbeth, D.G. Martinez, S. Toraya, U.K. Scarlett, J.R. Cubillos-Ruiz, M. Rutkowski and J.R. Conejo-Garcia.** Dartmouth Col. and Dartmouth Med. Sch. (131.14)

11:00 Abrogation of SHP-1 in tumor-specific effector T cells during adoptive immunotherapy of disseminated leukemia. **I. Stromnes, C. Fowler, J.N. Blattman, X. Tan and P.D. Greenberg.** Univ. of Washington and Fred Hutchinson Cancer Res. Ctr. (131.15)

11:15 Retrovirally expressed 4-1BBL dramatically increases proliferation and in vivo persistence of adoptively transferred CD19-targeted T cells, promoting complete tumor elimination. **M. Condomines, J. Plotkin, J.C. Markley, G. Gunset and M. Sadelain.** Mem. Sloan-Kettering Cancer Ctr. (131.16)

11:30 Combination of CTLA-4 blockade with anti-CD40/IL-2 immunotherapy augments the CD8+ T cell response in resting and tumor-bearing mice. **G.D. Sckisel, N.S. Nzigira, A. Hurwitz, B.R. Blazar and W.J. Murphy.** Univ. of California, Davis, NCI, NIH/Frederick and Univ. of Minnesota Cancer Ctr. (131.17)

11:45 Reconstitution of peripheral CD4+FOXP3+ regulatory T cells in cancer patients receiving adoptive immunotherapy is related to the clinical response to therapy. **X. Yao, M. Ahmadzadeh, S.A. Rosenberg and P.F. Robbins.** NCI, NIH. (131.18)

12:00 Provision of CD4+ T cell help preferentially enhances antitumor immunity of high avidity T cells. **Z. Zhu, V. Singh, V. Bronte, L. Feigenbaum and A.A. Hurwitz.** NCI, NIH, Univ. of Padova, Italy and SAIC Frederick. (131.19)

65. HOST DEFENSE: INNATE IMMUNE RECEPTORS AND SIGNAL TRANSDUCTION

Block Symposium

SUN. 10:15 AM—BCC ROOM 309

CHAIR: *P.J. Murray*

COCHAIR: *S.N. Vogel*

10:15 Proteomics decode RLR and TLR signaling circuitry. **S. Li, L. Wang and M.E. Dorf.** Harvard Med. Sch. (136.5)

10:30 Mindbomb proteins are E3 ubiquitin ligases essential for TBK1-mediated antiviral activity. **L. Wang, S. Li, Y. Kong and M.E. Dorf.** Harvard Med. Sch. and Seoul Natl. Univ., Republic of Korea. (136.6)

10:45 NLRP3 inflammasome-dependent HMGB1 release induced by a bacterial pore-forming toxin. **J. Chu, S. Alber, S.C. Watkins, G. Núñez and R.D. Salter.** Univ. of Pittsburgh Sch. of Med. and Univ. of Michigan Med. Sch. (136.15)

11:00 Toll-like receptor 9 is alternatively cleaved to generate a soluble form of the receptor that downregulates response to CpG-DNA. **A. Chockalingam, J.C. Brooks, J.L. Cameron and C.A. Leifer.** Cornell Univ. (136.25)

11:15 Size and shape matter: Role of surface curvature in inflammasome activation by synthetic microparticles. **C.A. St. Pierre, J. Zhu, R.C. Hayward and E.A. Kurt-Jones.** Univ. of Massachusetts Med. Sch. and Univ. of Massachusetts, Amherst. (136.39)

11:30 Identification of dTOR as a signaling component in the *Drosophila* immune response. **Y. Duan and J.D. Powell.** Johns Hopkins Univ. (136.41)

11:45 Inflammasome-dependent IL-1 β production is critical for complete Freund's adjuvant-induced helper T cell polarization. **K. Shenderov, D. Barber, K. Mayer, D. Jankovic, S. White, P. Caspar, S. Hieny, G. Trinchieri, G. Besra, V. Cerundolo and A. Sher.** NIAID, NIH, Weatherall Inst. of Molec. Med., Oxford Univ., United Kingdom, NCI, NIH and Sch. Of Biosciences, Univ. of Birmingham, United Kingdom. (136.44)

12:00 Structural studies of Toll like receptor signaling adaptors. **G. Snyder, J. Jiang, K. Chen, T. Fresquez, P. Smith, N. Snyder, T. Luchetti, C. Cirl, T. Miethke, N. Tjandra and T.S. Xiao.** NIAID, NIH, Institut für Medizinische Mikrobiologie, Technische Universität München, Germany and NHLBI, NIH. (136.45)

66. IMMUNOMODULATORY CYTOKINES

Block Symposium

SUN. 10:15 AM—BCC ROOM 308

CHAIR: *G. Grunig*

COCHAIR: *L. Lefrançois*

10:15 IL-16 mediates CD4 T lymphocyte accumulation in the lymph nodes by desensitizing S1P1. **D.S. Green, J. Richmond, B. Harstine, D. Center and W. Cruikshank.** Boston Univ. Sch. of Med. (134.1)

10:30 IL-27 promotes Tc1 polarization of human CD8 T lymphocytes and enhances their proliferation and effector functions. **N. Arbour, R. Schneider, T. Yaneva and D. Beauseigle.** Université de Montreal-CRCHUM, Canada. (134.2)

10:45 Visualization of IL-15 expression in innate immune cells during homeostasis and inflammation. **T.A. Stoklasek, S.L. Colpitts, J.J. Obar, C. Guo and L. Lefrançois.** Univ. of Connecticut Hlth. Ctr. and HHMI, Transgenic Unit at Janelia Farm Res. Campus. (134.3)

11:00 Mechanistic study of leptin-enhanced B cell survival. **Q. Lam and L. Lu.** Univ. of Hong Kong, Hong Kong. (134.7)

11:15 The region in the common gamma chain between amino acids (aa) 314-323 dictates efficient activation of the insulin receptor substrate (IRS)-2 pathway by interleukin (IL)-4. **N.M. Heller, X. Qi, F. Gesbert and A.D. Keegan.** Univ of Maryland Baltimore, Institut Pasteur, France and Universite Paris-Sud, France. (134.4)

11:30 Interleukin-19 regulates the immune homeostasis to the airborne environment. **G. Grunig, M. Sisco, J. Louten, E. Daley, C. Hoffman, C. Emson, T. Gordon and R. de Waal Malefyt.** NYU, Schering Plough Biopharma and St. Luke's Roosevelt Hosp. (134.5)

11:45 Enhanced liver regeneration in IL10-deficient mice after partial hepatectomy via activating hepatocyte STAT3 and stimulating inflammatory response. **S. Yin, H. Wang, O. Park, W. Wei, J. Shen and B. Gao.** Anhui Med. Univ., China, NIAAA, NIH, and Anhui Med. Univ., Ministry of Educ., China. (134.6)

12:00 Distinct roles for IL-13 and IL-17 in chronic inflammation and fibrosis. **T.A. Wynn, T. Ramalingam, S. Madala, R. Thompson, M. Mentink, L. Barron, A. Cheever and M. Wilson.** NIAID, NIH. (134.8)

67. LEUKOCYTE ACTIVATION, ADHESION, AND RECRUITMENT

Block Symposium

SUN. 10:15 AM—BCC ROOM 318-320

CHAIR: *K. Ley*

COCHAIR: *M. Nagarkatti*

10:15 Calcium signaling promotes targeted recycling of the lateral border recycling compartment (LBRC) during diapedesis. **F. Han, O. Florey, G. Feng and W.A. Muller.** Northwestern Univ. (140.1)

10:30 Monocyte trafficking to hepatic sites of bacterial infection is chemokine-independent and directed by focal ICAM-1 expression. **C. Shi, P. Velázquez, T.M. Hohl, I. Leiner, M.L. Dustin and E.G. Pamer.** Sloan Kettering Inst., Skirball Inst. of Biomolecular Med. and Weill Cornell Grad. Sch. of Med. Sci. (140.2)

10:45 The LFA-1/ICAM-1 bond: a spatio-temporal cue in PMN recruitment in acute inflammation. **N. Dixit and S.I. Simon.** Univ. of California, Davis. (140.3)

11:00 Cannabidiol attenuates experimental autoimmune hepatitis by inducing accumulation of myeloid-derived suppressor cells (MDSCs) in liver. **V.L. Hegde, P.S. Nagarkatti and M. Nagarkatti.** Univ. of South Carolina. (140.4)

11:15 Cyclophilin A synergizes with MIP-2 to augment proinflammatory leukocyte recruitment. **S. Heine, D. Olive, I. Okwumabua, M.I. Bukrinsky and S.L. Constant.** George Washington Univ. (140.5)

11:30 In vivo imaging of monocyte-mediated neutrophil extravasation during acute arthritis. **B. Wang, H. Runnels, B. Zinselmeyer, P. Allen and M. Miller.** Washington Univ. in St. Louis and Pfizer Global R&D. (140.6)

11:45 Cross-talk between chemoattractant and integrin signaling required for robust calcium flux in neutrophils. **H. Zhang and K. Ley.** La Jolla Inst. of Allergy and Immunol. (140.7)

12:00 Evaluation of the effects of disease-causing mutations in type I TNF receptor (TNFR1) on neutrophil responses. **M. Pelletier, A.C. Bulua, D.L. Kastner and R.M. Siegel.** NIAMS, NIH. (140.8)

68. REGULATION OF AUTOIMMUNE RESPONSES I

Block Symposium

SUN. 10:15 AM—BCC ROOM 310

CHAIR: *C. Teuscher*

COCHAIR: *D.C. Roopenian*

10:15 Evidence supporting the existence of a novel histaminergic pathway in the regulation of EAE susceptibility. **N. Saligrama, R. Del Rio, L.K. Case, R. Noubade and C. Teuscher.** Univ. of Vermont. (143.51)

10:30 The splicing factor ASF/SF2 regulates the expression of the human T cell receptor CD3 zeta chain. **V.R. Moulton and G.C. Tsokos.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. (143.11)

10:45 Beclin-1 is required for T cell-mediated immune responses. **J.R. Kovacs, C. Li and B. Lu.** Univ. of Pittsburgh, Sch. of Med. and Univ. of Pittsburgh Cancer Inst. (143.19)

11:00 The nuclear hormone receptor PPAR α regulates T cell activation and survival in lymphopenic autoimmune models. **W.J. Housley, C.A. O'Connor and R.B. Clark.** Univ. of Connecticut Hlth. Ctr. (143.8)

11:15 Sex-related differences in regulatory T cell function are estrogen and B7-H1 dependent. **P. Lin, L. Sun, M.E. Wierman, R.R. Tekmal, A. Pierce, B.J. Daniel and T.J. Curiel.** Univ. of Texas Hlth. Sci. Ctr., Univ. of Colorado and South Texas Veterans Hlth. Care Syst. (143.53)

11:30 IL-17 downregulates p50 and p105 to sustain efficient active NF- κ B signaling responses in the splenic B cells of autoimmune BXD2 mice. **S. Xie, H. Hsu, Q. Wu, J. Li, P. Yang, Y. Ding and J.D. Mountz.** Univ. of Alabama at Birmingham. (143.48)

11:45 CD8⁺ T suppressor cells protect from lupus-like autoimmunity. **C. McPhee, J. Bubier, T. Sproule, P. Wettstein, H. Morse and D. Roopenian.** The Jackson Lab., Mayo Clin. and NIH. (143.31)

12:00 A key role for Fas ligand on B cells in unleashing T cell diabetogenicity by suppression of IL-10-mediated islet tolerance. **Z. Xiao.** Johns Hopkins Univ. (143.34)

76. COSTIMULATION OF T CELL RESPONSES

Block Symposium

SUN. 1:45 PM—BCC ROOM 310

CHAIR: *R.B. Effros*

COCHAIR: *P.D. Katsikis*

1:45 Maintaining CD28 expression prevents replicative senescence in human CD8 T cells. **S. Parish, J.E. Wu and R.B. Effros.** UCLA. (50.23)

2:00 The effector phase of the CD8⁺ T cell response is not programmed during initiation. **P. Duttagupta, D.V. Dolfi, A. Boesteanu, Y. Mueller and P.D. Katsikis.** Drexel Univ. Col. of Med. (50.25)

2:15 A critical role of GRAIL in T cell activation and tolerance. **R. Nurieva, S. Zheng, W. Jin, S. Sun, G. Lozano and C. Dong.** MD Anderson Cancer Ctr. and Natl. Def. Med. Ctr., Taiwan. (50.18)

2:30 Effects of bystander inflammatory cytokines on CD8 T cell response to future antigenic encounter. **S. Thomas, G. Kolumam, L. Thompson and M. Kaja.** Univ. of Washington. (50.33)

2:45 CD8 T cells require intrinsic GITR signaling for their clonal expansion during influenza infection in vivo. **L.M. Snell, A.J. McPherson, G.H. Lin, S. Sakaguchi, P.P. Pandolfi, C. Riccardi and T.H. Watts.** Univ. of Toronto, Canada, Univ. of Kyoto, Japan, Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. and Univ. of Perugia, Italy. (50.21)

3:00 Intrinsic IL-21 signaling is critical for CD8 T cell memory formation in response to Vaccinia viral infection. **P. Novy and Y. Yang.** Duke Univ. (50.32)

3:15 Genome-wide transcription profiling identifies the mechanisms of LFA-1 contributing to CD8⁺ T cell activation and immune signal network. **D. Li, H. Li, S. Liang, J.J. Molldrem and Q. Ma.** Univ. of Texas MD Anderson Cancer Ctr. (50.26)

3:30 qIL-2/ IL-2 mAb treatment generates prolonged expansion and increased cytokine production by NKT cells. **K.E. Webster, K. Kyparissoudis, D.I. Godfrey and J. Sprent.** Garvan Inst. of Med. Res., Australia and Univ. of Melbourne, Australia. (50.42)

77. IMMUNITY, IMMUNIZATION, AND INFLAMMASOMES IN COMPARATIVE ANIMAL SPECIES

Block Symposium

SUN. 1:45 PM—BCC ROOM 314

CHAIR: *W.T. Golde*

COCHAIR: *D.M. Estes*

1:45 A novel model to study lethal vs. non-lethal viral encephalitis. **K. Taylor, O. Kolokoltsova, V. Borisevich, B. Peng, J. Smith, M. Estes, N. Yun, A. Poussard and S. Paessler.** Univ. of Texas Med. Br. (43.1)

2:00 The puzzle of TIR domain-containing proteins in bacteria. **Q. Zhang, C.M. Zmasek, X. Cai and A. Godzik.** Burnham Inst. for Med. Res. and Skaggs Sch. Of Pharmacy and Pharmaceut. Sci., UCSD. (43.3)

2:15 Embryo vaccination using novel adjuvant formulation and *Eimeria* profilin-induced protective immunity against *E. maxima* infection. **H. Lillehoj, S. Lee, S. Jang, Y. Hong and D. Dominowski.** Animal and Natural Resources Inst. and Pfizer Inc. (43.4)

2:30 Ad5-vectored FMDV vaccine elicits antigen-specific CTL responses in swine. **J.R. Patch, L.E. Pedersen, M.P. Moraes, M.J. Grubman and W.T. Golde.** Plum Island Animal Dis. Ctr. (43.10)

2:45 Organization of bovine lambda light chain genes on chromosome 17. **Y. Pasman, S.S. Saini, E. Smith and A.K. Kaushik.** Univ. of Guelph, Canada. (43.14)

3:00 Alternate delivery systems to improve vaccine performance against foot-and-mouth disease virus. **M. Pandya, E. Bishop, J. Pacheco, C.C. Scherer, F. Milward, T. Doel and W.T. Golde.** Plum Island Animal Dis. Ctr., USDA, Merial Limited and Merial Limited, United Kingdom. (43.15)

3:15 Immunogenicity of *Anaplasma marginale* T4SS proteins. **W.C. Brown, K. Morse, E.L. Sutten and J. Norimine.** Washington State Univ. (43.18)

3:30 Rapid evolution of a primate-restricted inflammasome regulator. **J.A. Harton, T. Fuchs and M.K. Atianand.** Albany Med. Col. and Univ. at Albany. (43.25)

78. IMMUNOLOGICAL IMPACTS OF ANTIGEN PROCESSING AND PRESENTATION

Block Symposium

SUN. 1:45 PM—BCC ROOM 318-320

CHAIR: *L.M. Ganley-Leal*

COCHAIR: *C.M. Walker*

1:45 Human invariant chain lip35 isoform expressed in lideficient mice fully restores thymic selection. **L. Genève, N. Labrecque and J. Thibodeau.** Université de Montréal, Canada. (130.16)

2:00 Exosome-mediated MHCII cross-presentation substantially enhanced by the receptor binding activity of influenza hemeagglutinin. **J.S. Testa, G.S. Apcher and L.C. Eisenlohr.** Thomas Jefferson Univ. (130.10)

2:15 CD23-bound IgE augments and dominates recall responses through human naïve B cells. **Q. Griffith, Y. Liang, D. Onguru, T. Shah, H. Haas, P. Mwinzi and L. Ganley-Leal.** Boston Univ. Sch. of Med., Kenya Med. Res. Inst. (KEMRI), Kenya and Res. Ctr. Borstel, Germany. (130.3)

2:30 IFN- γ suppresses antigen presentation by dendritic cells after infection. **R.I. Thacker and M. Jordan.** Cincinnati Children's Hosp. (130.6)

2:45 Mechanisms of antigen presentation in recombinant adeno-associated virus (rAAV) vector mediated vaccination and gene therapy. **D. Xu, V.M. Velazquez, D.V. Schaffer, B.K. Kaspar and C.M. Walker.** Ohio State Univ., Nationwide Children's Hosp., Emory Univ. and Univ. of California, Berkeley. (130.36)

3:00 The role of human Dectin-1 in eliciting antigen-specific CD8⁺ T cell responses. **L. Ni, X. Li, G. Ingrid, D. Duluc, P. Klucar, S. Clayton, S. Zurawski, K.A. Palucka, G. Zurawski, J. Banchereau and S. Oh.** Baylor Inst. for Immunol. Res. (130.35)

3:15 Cutaneous delivery of Poly(dG) conjugated protein antigens targets and activates DCs in vivo. **H. Toussaint, G. Erdos, M. Williams, C. Donahue and L.D. Falò.** Univ. of Pittsburgh. (130.38)

3:30 Endogenous MR1 is transiently expressed on the cell surface and can be stabilized with a unique mAb for activation of mucosal-associated invariant T cells. **W. Chua, L. Yu, N. Myers, S. Kim, S. Huang and T.H. Hansen.** Washington Univ. in St. Louis. (130.19)

79. TRANSPLANTATION IMMUNOLOGY

Block Symposium

SUN. 1:45 PM—BCC ROOM 321-323

CHAIR: *A.D. Wells*

COCHAIR: *T.J. Fry*

1:45 Cyclin-dependent kinase 2 (CDK2) opposes T cell anergy and promotes cardiac allograft rejection. **N. Chunder, L. Wang, W.W. Hancock and A.D. Wells.** Children's Hosp. of Philadelphia and Univ. of Pennsylvania. (145.41)

2:00 Over-expression of FGL2 leads to indefinite graft survival without the need for immunosuppression. **A. Bartczak, W. He, I. Shalev, M. Mendicino, P. Urbanellis, J. Zhang, M. Ma, R. Khattar, O. Adeyi, J. Phillips, D. Grant and G. Levy.** Univ. of Toronto, Canada and Univ. Hlth. Network, Canada. (145.37)

2:15 High-mobility group box1 contributes to kidney ischemia reperfusion injury through TLR4 signaling. **H. Wu, J. Ma, P. Wang, K.R. Wyburn and S.J. Chadban.** Royal Prince Alfred Hosp., Australia and Univ. of Sydney, Australia. (145.38)

2:30 Extracellular purines serve as an innate trigger to allograft rejection. **D.K. Reichenbach, Q. Li, A.J. Demetris and F.G. Lakkis.** Univ. of Pittsburgh Sch. of Med. and Univ. of Pittsburgh. (145.39)

2:45 B cells differentially regulate acute and chronic cardiac, renal, and skin allograft rejection. **D.J. DiLillo, R. Griffiths, P. Ruiz, T.M. Coffman and T.F. Tedder.** Duke Univ. Med. Ctr., Durham VAMC and Univ. of Miami Sch. of Med. (145.42)

3:00 Alloreactive CD8 T cells require cell-intrinsic PD-1 and upregulate Nr4a and Egr family members during deletional tolerance in vivo. **C. Lucas and M. Sykes.** Harvard Univ. (145.43)

3:15 Repression of NFAT1 protein expression by MicroRNA-184 in umbilical cord blood (UCB) CD4⁺ T-cells as a potential mechanism underlying lower incidence of acute graft-vs-host disease (aGVHD). **R.P. Weitzel, M.L. Lesniewski and M.J. Laughlin.** Case Western Reserve Univ. and Cleveland Cord Blood Ctr. (145.36)

3:30 STAT1-deficient bone marrow prevents GVHD by modulating plasmacytoid DCs while preserving vaccine-mediated responses to tumor. **C.M. Capitini, S.M. Larabee, H. Qin, Y. Song, J. Khan, C.L. Mackall and T.J. Fry.** NCI, NIH and Children's Natl. Med. Ctr. (145.40)

MONDAY BLOCK SYMPOSIA

105. INFLAMMATORY CYTOKINES

Block Symposium

MON. 8:00 AM—BCC ROOM 310

CHAIR: *C.S. Via*

COCHAIR: *E. Galkina*

8:00 TRAF6, a new member of the proximal signaling complex recruited by BAFFR and TAC1 in B lymphocytes. **J. Hildebrand and G. Bishop.** Univ. of Iowa and VAMC. (34.1)

8:15 Characterization of the role of indirect TRAF6 association in CD40 signaling. **D. Decker and G. Bishop.** Univ. of Iowa and VAMC. (34.2)

8:30 The type 2 TNF receptor plays a critical role in the activation of Tregs in vivo. **W.J. Housley, C.A. O'Connor and R.B. Clark.** Univ. of Connecticut Hlth. Ctr. (34.3)

8:45 Signaling through the TNF-R2 (p75) but not TNF-R1 (p55) is absolutely required for in vivo CTL maturation in parent-into-F1 mice. **K. Soloviova, I. Puliaeva, T. Lang, R. Puliaev and C. Via.** Uniformed Serv. Univ. of Hlth. Sci. and Univ. Maryland, Baltimore. (34.4)

9:00 Determining the extent to which clinically effective treatment, ustekinumab or etanercept, reverses the molecular disease profile of psoriatic skin: comparisons of lesional, non-lesional and normal skin. **C. Brodmerkel, K. Li, F. Baribaud, M. Suarez-Farinas and J. Krueger.** Centocor Res. & Develop. and Rockefeller Univ. (34.5)

9:15 Th17 cells contribute to the exacerbated autoimmune arthritis in CCR2-deficient mice. **P. Liu, T.K. Tarrant, R.R. Rampersad, C.T. Vallanat, T. Quintero-Matthews, D.D. Patel and A.M. Fong.** Univ. of North Carolina, Chapel Hill and Novartis Institutes for Biomed. Res., Basel, Switzerland. (34.6)

9:30 Regulating human Th17 cells via differential expression of IL-1 receptor. **W. Lee, S. Kang, J. Choi, S. Lee, K. Shah, E.E. Eynon, R.A. Flavell and I. Kang.** Yale Univ. Sch. of Med., Howard Hughes Med. Inst., Seoul Natl. Univ. Col. of Med., Republic of Korea, Chungnam Natl. Univ. Col. of Med., Republic of Korea and Konkuk Univ. Sch. of Med., Republic of Korea. (34.7)

9:45 IL-17A plays a pro-atherogenic role in atherosclerosis. **M. Butcher, E. Smith, T. Phillips, K. Prasad, J. Kolls, K. Ley and E. Galkina.** Eastern Virginia Med. Sch., Univ. of Virginia, LSU Hlth. Sci. Ctr., La Jolla Inst. for Allergy and Immunol. and Univ. of Birmingham, United Kingdom. (34.8)

106. MYELOID, NK, AND DC DEVELOPMENT

Block Symposium

MON. 8:00 AM—BCC ROOM 318-320

CHAIR: *L. Borghesi*

COCHAIR: *K. Tarbell*

8:00 miRNAs are required for the epidermal Langerhans cell development. **L. Zhou, H. Wang, K. Li, R. Qi, Z. Zhang, M. Weiland, D.H. Kaplan and Q. Mi.** Henry Ford Hlth. Syst. and Univ. of Minnesota. (36.18)

8:15 Interleukin-2 controls flt3L-dependent development and phenotype of conventional and plasmacytoid dendritic cells. **A. Lau-Kilby, C. Kretz, J.J. O'Shea, G. Trinchieri and K.V. Tarbell.** NIDDK, NIH, NIAMS, NIH and NCI, NIH. (36.19)

8:30 CEACAM1 regulates granulopoiesis through inhibition of G-CSFR-Stat3 signaling in an ITIM-SHP-1 dependent manner. **H. Pan and J.E. Shively.** City of Hope Grad. Sch. of Biol. Sci. (36.20)

8:45 Neutrophil density in bone marrow controls granulopoiesis by feedback inhibition. **D.W. Cain, P.B. Snowden, G.D. Sempowski and G. Kelsoe.** Duke Univ. (36.21)

9:00 SHP2 protein-tyrosine phosphatase is a key regulator of mast cell signaling and development in mice. **N. Sharma, S. Everingham, G. Feng, A. Roers and A.W. Craig.** Queen's Univ., Canada, UCSD and Tech. Univ. of Dresden, Germany. (36.22)

9:15 Predominance of an unusual natural killer phenotype during recovery after natural killer cell depletion. **M. Alvarez, I. Barao, M.T. Orr, L.L. Lanier, D. Redelman and W.J. Murphy.** Univ. of California, Davis, Univ. of Nevada, Reno and UCSF. (36.23)

9:30 Identification of an IL-7 responsive CD4+ lymphoid tissue inducer cell from adult human blood. **V. Bekiaris, B. Greenberg, J. Sedy and C. Ware.** La Jolla Inst. for Allergy & Immunol. (36.24)

107. NOVEL THERAPEUTIC APPROACHES IN MODELS OF ALLERGY

Block Symposium

MON. 8:00 AM—BCC ROOM 321-323

CHAIR: *J.M. Cook-Mills*

COCHAIR: *R.S. Thrall*

8:00 Bypassing a relatively common deficiency in neurotransmitter synthesis blocks allergic inflammation.

J.M. Cook-Mills, R. Mahadevia, C. McCary, H. Abdala-Valencia and S. Berdnikovs. Northwestern Univ. (97.8)

8:15 Vitamin E isoforms and doses differentially regulate experimental asthma.

C. McCary, H. Abdala-Valencia, S. Berdnikovs and J. Cook-Mills. Feinberg Sch. Of Med., Northwestern Univ. (97.9)

8:30 Induction of regulatory T cells by a novel immunoregulatory therapy suppresses the development of allergic airways disease.

A.N. Thorburn, P.S. Foster, P.G. Gibson and P.M. Hansbro. Univ. of Newcastle, Australia and Hunter Med. Res. Inst., Australia. (97.10)

8:45 In vivo Treg expansion by TNFRSF25 stimulation inhibits allergic lung inflammation.

M.S. Tsai, T.H. Schreiber, D.M. Wolf, J. Chirinos, L.E. Gonzalez, T.B. Levy and E.R. Podack. Univ. of Miami Miller Sch. of Med. (97.11)

9:00 Immunocomplexes down-modulate the induction of food allergy in mouse.

C.A. Alves de Araujo, B.S. Clay, K. Ganeshan, P.J. Bryce and A.I. Sperling. Univ. of Chicago and Northwestern Univ. (97.12)

9:15 Helminths abrogate antigen-specific gut inflammation in a novel murine model of non-IgE-mediated food hypersensitivity.

J. Leung, L. Hang, A. Blum, T. Setiawan, K. Stoyanoff and J. Weinstock. Tufts Med. Ctr. (97.13)

9:30 Hilar node CD5+ B cells from tolerant mice inhibit allergic airway disease in sensitized recipients.

C.M. Schramm, J.T. McNamara, A. Singh, E.R. Secor Jr., L.A. Guernsey and R.S. Thrall. Univ. of Connecticut Hlth. Ctr. (97.14)

9:45 Exercise increases regulatory T cell function and decreases Th2 and Th17 cytokine production in healthy and asthmatic mice.

T. Lowder, K. Dugger, K. Estell, J. Deshane and L. Schwiebert. Univ. of Houston and Univ. of Alabama at Birmingham. (97.15)

108. T CELL SIGNALING

Block Symposium

MON. 8:00 AM—BCC ROOM 309

CHAIR: *A. August*

COCHAIR: *J.L. Pomerantz*

8:00 Regulation of TCR signaling and CARD11 by the kinesin GAKIN. **R.L. Lamason, A. Kupfer and J. Pomerantz.** Johns Hopkins Sch. of Med. (50.16)

8:15 Studying the cooperativity at the SLP-76 signaling complex critical for the immune response.

M. Barda-Saad, N. Shirasu, M.H. Pauker, N. Hasan, O. Perl, A. Balbo, H. Yamaguchi, J.C. Houtman, E. Appella, P. Schuck and L.E. Samelson. Bar Ilan Univ., Israel, NCI, NIH, NIBIB, NIH and Univ. of Iowa. (50.7)

8:30 Partial rescue of Itk^{-/-} iNKT cell development by Txk/Rlk reveals a unique role for Itk in the survival of iNKT cells.

Q. Qi, Y. Bai, P. Schwartzberg and A. August. Pennsylvania State Univ. and NIH. (50.40)

8:45 Control of T cell activation by Drak2 depends on protein kinase D and the interplay between calcium and reactive oxygen species.

R. Newton and C.M. Walsh. Univ. of California, Irvine. (50.6)

9:00 RIAM and RapL regulate distinct signaling events and functional outcomes upon TCR-mediated activation.

N.E. Patsoukis, E.M. Lafuente and V.A. Boussiotis. Harvard Univ. Beth Israel Deaconess Med. Ctr. and Universidad Complutense de Madrid, Spain. (50.8)

9:15 A mutational analysis of CD28 utilizing targeted knock-in mice.

J. Boomer, C. Deppong, L. Dodson, D. Shah, T. Bricker and J. Green. Washington Univ. Med. Sch. (50.24)

9:30 TORC1 and TORC2 selectively regulate CD4+ T helper cell lineage differentiation.

G.M. Delgoffe, A.T. Waickman, K.N. Pollizzi, B. Xiao, P.F. Worley and J.D. Powell. Johns Hopkins Sch. of Med. (50.35)

9:45 The role of p53 in antigen-specific and bystander T cell proliferative responses.

M. Watanabe, K.S. Hathcock, M.S. Vacchio, K. Moon and R.J. Hodes. NIH. (50.15)

112. CONTROL AND DEVELOPMENT OF TREG

Block Symposium

MON. 10:15 AM—BCC ROOM 316-317

CHAIR: *D.W. Scott*

COCHAIR: *B.R. Blazar*

10:15 Nuclear factor- κ B drives the development of Foxp3+ regulatory T cells through the c-Rel enhanceosome. **Q. Ruan, V. Kameswaran, Y. Tone, L. Li, H. Liou, M.I. Greene, M. Tone and Y.H. Chen.** Univ. of Pennsylvania Sch. of Med. and Cornell Univ. Med. Col. (49.1)

10:30 Strong CD28 co-stimulation limits generation of regulatory T cells from naïve T cells through Lck and PI3K signaling. **K. Semple, A. Nguyen and X. Yu.** Univ. of South Florida and Moffitt Cancer Ctr. & Res. Inst. (49.4)

10:45 The PD-Ligand pathway regulates the development, maintenance and function of induced regulatory T cells in vitro and in vivo. **L. Francisco, V. Salinas, K. Brown, V. Vanguri, G. Freeman, V.K. Kuchroo and A.H. Sharpe.** Harvard Med. Sch. and Brigham & Women's Hosp. (49.16)

11:00 Interleukin-35-mediated induction of a novel regulatory T cell population. **L.W. Collison, A.L. Henderson, V. Chaturvedi, M.J. Turk and D.A. Vignali.** St. Jude Children's Res. Hosp. and Dartmouth Med. Sch. (49.7)

11:15 The transcriptional repressor BCL6 controls the suppressive function of regulatory T cells and inhibits Th2 cytokine expression by regulatory T cells. **A. Dent and D. Sawant.** Indiana Univ. Sch. of Med. (49.10)

11:30 NFATc2 is an intrinsic negative regulator of proliferation in effector T cells and is necessary for extrinsic control by regulatory T cells. **J.F. Modiano, S.L. Highfill, Q. Zhou, M. Lewellen, S.L. Highfill, C.M. Bucher and B.R. Blazar.** Univ. of Minnesota. (49.17)

11:45 T cell-intrinsic IL-10 signaling negatively regulates Th1 immunity by restraining IL-12 responsiveness of effector T cells. **G. Yap, D. Wilson, A. Marple, M. Kamanaka and R. Flavell.** New Jersey Med. Sch. and Yale Univ. (49.20)

12:00 T cell epitopes (Tregitopes) suppress immune responses in vivo by activating natural Tregs. **Y. Su, L. Moise, X. Li, R. Rossi, J. Skupsky, W.D. Martin, A.S. DeGroot and D.W. Scott.** Univ. of Maryland Sch. of Med., EpiVax, Inc. and Univ. of Rhode Island. (49.24)

113. IMMUNE RESPONSES TO VIRAL INFECTION

Block Symposium

MON. 10:15 AM—BCC ROOM 321-323

CHAIR: *A.J. Zajac*

COCHAIR: *L.J. Sigal*

10:15 ICAM-1 deficiency results in enhanced maintenance of effector CD8 T cells following infection. **M.A. Cox, D.C. Bullard and A.J. Zajac.** Univ. of Alabama at Birmingham. (39.3)

10:30 Structural determinants of IFN γ distinguish antiviral and potentially toxic functions. **N. Vazquez, H. Schmeisser, J. Bekisz, K.C. Zoon and S.M. Wahl.** NIDCR, NIH and NIAID, NIH. (39.7)

10:45 Not just neutralizing Abs: prevention and cure of a viral disease by antibodies that block the biological function of a virulence factor. **R. Xu and L. Sigal.** Fox Chase Cancer Ctr. (39.21)

11:00 Exhaustion of intra-hepatic CD8+ T cells targeting intact and escaped MHC class I epitopes in chronic phase of hepatitis C virus infection. **B. Callendret, D.G. Bowen, M.J. Fuller, H.B. Eccleston, J. Rutckiewicz, D.L. Hasselschwert, G.J. Freeman and C.M. Walker.** Nationwide Children's Hosp. and Harvard Med. Sch. (39.20)

11:15 Unravelling CD4 T cell dysfunction during chronic infection. **A. Crawford and E. Wherry.** Wistar and Univ. of Pennsylvania. (39.17)

11:30 Cell-intrinsic Transforming Growth Factor- β signaling mediates virus-specific CD8+ T cell deletion and viral persistence in vivo. **R. Tinoco, V. Alcalde, Y. Yang, K. Sauer and E.I. Zuniga.** UCSD and Scripps Res. Inst. (39.12)

11:45 Control of RSV-induced lung injury by alternatively activated macrophages is IL-4R α -, TLR4-, and IFN- β -dependent. **K. Shirey, L.M. Pletneva, A.C. Puche, A.D. Keegan, G.A. Prince, J.C. Blanco and S.N. Vogel.** Univ. of Maryland, Baltimore and Virion Systems, Inc. (137.8)

12:00 Regulatory T cell expression of herpes virus entry mediator (HVEM) following HSV-1 infection and its functional significance. **S. Sharma, A. Sundararajan, S. Mulik and B.T. Rouse.** Univ. of Tennessee. (137.25)

114. LYMPHOCYTE / APC MIGRATION MECHANISMS

Block Symposium

MON. 10:15 AM—BCC ROOM 318-320

CHAIR: *R.L. Fairchild*

COCHAIR: *B.S. Nikolajczyk*

10:15 Impaired T cell homing and transendothelial migration in CIP4 null mice caused by defective integrin-mediated adhesion. **S. Koduru, L. Kumar, E. Ozcan, M.K. Oyoshi, M.J. Massaad, S. Le Bras, N. Ramesh, M. Kaku, Y. Fujiwara, L. Kremer, S. King, R. Fuhlbrigge, P. Sage, C. Carman, P. Alcaide, F.W. Luscinskas and R.S. Geha.** Children's Hosp. Boston, Centro Nacional de Biotecnologia-CSIC, Spain, Brigham and Women's Hosp. and Beth Israel Deaconess Med. Ctr. (44.1)

10:30 TNF- α induces endothelial cell expression of Intercellular Adhesion Molecule-1 (ICAM-1) required for recruitment of antigen-primed CD8 T cells to mediate responses in the skin. **D.D. Kish, W.M. Baldwin and R.L. Fairchild.** Cleveland Clin. (44.2)

10:45 Non-T cells are required for a poised Th17 phenotype and elevated IL-17 secretion by T cells from type 2 diabetes patients. **M. Jagannathan, M.E. McDonnell, H. Shin, H. Hasturk and B.S. Nikolajczyk.** Boston Univ. Sch. Of Med., Boston Med. Ctr. and Boston Univ. Goldman Sch. of Dent. Med. (44.3)

11:00 Podoplanin interactions with CLEC-2 regulate dendritic cell migration. **S.E. Pinner, D. Mourao-Sa and S.J. Turley.** Dana Farber Cancer Inst. and UK London Res. Inst., United Kingdom. (44.4)

11:15 Development and migration of pre-plasma cells in the mouse lymph node. **D.R. Fooksman, D. Skokos, M.L. Dustin and M. Nussenzweig.** NYU, Skirball Inst., Rockefeller Univ. and Regeneron. (44.5)

11:30 Thioredoxin inhibits epidermal Langerhans' cell(LC) migration in man and mouse. **R. Dearman, M. Cumberbatch, G. Del Val, R. Almond, C. Griffiths and I. Kimber.** Univ. of Manchester, United Kingdom and Syngenta Biopharma, United Kingdom. (44.6)

11:45 Matrix metalloproteases mediate migration of pulmonary T cells in response to influenza virus infection. **B. Baaten, M. Deiro and L. Bradley.** Burnham Inst. for Med. Res. (44.7)

12:00 Extracellular adenosine triggers lymphocyte entry into the central nervous system during experimental autoimmune encephalomyelitis by regulating chemokine and adhesion molecule expression in the brain. **J.H. Mills, L. Alabanza, C. Mueller and M.S. Bynoe.** Cornell Univ. (44.12)

115. TRANSCRIPTIONAL AND POSTTRANSCRIPTIONAL REGULATION OF CYTOKINE AND CYTOKINE RECEPTOR EXPRESSION

Block Symposium

MON. 10:15 AM—BCC ROOM 324-326

CHAIR: *L.R. Covey*

COCHAIR: *J.H. Bream*

10:15 Faithful epigenetic and transcriptional regulation of a transgenic human Th2 cytokine gene locus in the murine nuclear environment. **V. Pivniouk, T. Bailey, O. Pivniouk, P. Kiesler, G. Wlasiuk, D. Rosenbaum, K. Kim, J. Stempel, M. Daines and D. Vercelli.** Univ. of Arizona. (51.1)

10:30 Alternatively spliced IL-4 protein is naturally secreted by T cells. **A. Bocharov, V. Lockett, S. Lavania, N.W. Todd, I.G. Luzina and S.P. Atamas.** VAMC and Univ. of Maryland, Baltimore. (51.2)

10:45 Retinoic acid modulates IL-4 receptor alpha chain expression and signaling pathways in intestinal epithelial cells and macrophages. **H.D. Dawson, C. Chen, D. Fendley, C.C. Chitko-Mckown, B. Wagner, P.C. Boyd, J.K. Lunney and J.F. Urban Jr.** DGIL, BHNRC, ARS, USDA, APDL, ANRI, ARS, USDA, MARC, ARS, USDA and Col. of Vet. Med., Cornell Univ. (51.3)

11:00 A natural antagonist of human IL-23 inhibits the development and function of human Th17 cells. **G. Gallagher and R. Yu.** HUMIGEN LLC, the Inst. for Genet. Immunol. (51.4)

11:15 Effects of cell-type-specific hIL-10 expression on disease susceptibility. **D. Ranatunga, C.M. Hedrich, F. Wang, D. McVicar, N. Norwak, T. Joshi, L. Feigenbaum, L. Grant, S. Stager and J.H. Bream.** Johns Hopkins Univ., Bloomberg Sch. of Publ. Hlth., NCI, NIH, Transnetyx Inc, Johns Hopkins Sch. of Med. and SAIC. (51.5)

11:30 The cell-specific induction of CXCL9 by interferon (IFN)- γ in CNS microglia is determined by the myeloid transcription factor PU.1. **I. Campbell, S. Carter and V. Gysbers.** Univ. of Sydney, Australia. (51.6)

11:45 Novel gene expression patterns in IFN- γ 3'untranslated region AU-rich element-deleted mice. **H.A. Young, D.L. Hodge, C. Berthet, J. Subleski, V. Coppola, P. Schaughency, C. Razzook and M. Buschman.** NCI, NIH-Frederick. (51.7)

12:00 Modulation of CD40L expression by polypyrimidine tract binding protein (PTB). **R.A. Matus Nicodemos, S. Vavassori, J. Laughlin and L.R. Covey.** Rutgers Univ., Univ. of Basel, Switzerland and PTC Therapeut. (51.8)

122. CD4 T CELL MEMORY AND TCR REPERTOIRE

Block Symposium

MON. 1:45 PM—BCC ROOM 321-323

CHAIR: *D.L. Farber*

COCHAIR: *J. Gorski*

1:45 Transcriptional control of rapid recall by memory CD4 T cells. **W.W. Lai, M. Yu, F. Okoye, A.D. Keegan and D. Farber.** Univ. of Maryland, Baltimore. (85.10)

2:00 Deciphering the function of the microRNA-181a in effector CD4+ T cells. **M. Deng, M. Arias, M. Ramaswamy and R.M. Siegel.** NIAMS, NIH. (85.19)

2:15 A programmed gene expression initiated by clearance of infection turns CD4 memory T cells dormant. **S. Sadegh-Nasseri, S. Khoruzhenko and S.K. Dalai.** Johns Hopkins Univ. (85.18)

2:30 Bim regulates the entry of poorly functional and/or low avidity Th1 effector cells into the memory pool. **M. Williams and D.C. Jay.** Univ. of Utah. (85.15)

2:45 Comprehensive and semi-quantitative TCR repertoire analysis with a novel multiplex PCR method and 454 sequencing. **J. Han, C. Wang, C.M. Sanders, Q. Yang, H. Schroeder, E. Wang, F. Babrzadeh, B. Gharizadeh, R. Myers, J. Hudson and R. Davis.** HudsonAlpha Inst. of Biotechnology, Stanford Genome Technol. Ctr. And Univ. of Alabama at Birmingham. (85.3)

3:00 The CD4 memory T cell repertoire specific for a hemagglutinin influenza A virus peptide in DR1 individuals is clonotypically diverse. **M. Tutaj and J. Gorski.** BloodCenter of Wisconsin. (85.5)

3:15 Selective loss of dominant low affinity CD4 T cells during memory differentiation. **C.K. Baumgartner and L.P. Malherbe.** BloodCenter of Wisconsin. (85.6)

3:30 Decline of influenza-specific T cell repertoire in healthy geriatric donors. **J. Lee, M. Oelke, L. Ramachandra, D. Canaday and J. Schneck.** Johns Hopkins Univ. and Case Western Univ. (85.2)

123. HOST DEFENSE: INNATE IMMUNE CELLS AND PROTECTIVE IMMUNITY

Block Symposium

MON. 1:45 PM—BCC ROOM 316-317

CHAIR: *E.O. Long*

COCHAIR: *C. Gowda*

1:45 Enhancement of antiviral immunity by a peptide antagonist of SOCS. **C.M. Ahmed, R. Dabelic and H.M. Johnson.** Univ. of Florida. (89.9)

2:00 Epithelial STAT3 activation is associated with expression of the antimicrobial peptide S100A7. **K. Hulse, J. Norton, K. Harris, D. Conley, R. Chandra, R. Kern, A. Peters, L. Grammer, E. Cohen, R. Singh, R. Carter, L. Suh and R. Schleimer.** Northwestern Univ. Feinberg Sch. of Med. (89.14)

2:15 Neutrophil gelatinase-associated lipocalin (NGAL): Endogenous activators of the immune system. **P. Tewary, C. Redmond, M. Clifton, D. Yang and J.J. Oppenheim.** NCI, NIH, Rutgers, Fred Hutchinson Cancer Res. and SAIC Frederick. (89.15)

2:30 ATP induced microvesicles stimulate macrophage activation. **L.M. Thomas and R.D. Salter.** Univ. of Pittsburgh. (89.18)

2:45 The connection between Serum Amyloid P/Pentraxin-2 and IL-10 in the treatment of kidney fibrosis. **A.P. Castano, M.L. Lupher Jr and J.S. Duffield.** Brigham and Women's Hosp., Harvard Med. Sch. And Promedior Inc. (89.43)

3:00 Identification of novel ligand(s) for the NK cell receptor, KIR2DL4. **M. Brusilovsky, A. Porgador and K.S. Campbell.** Fox Chase Cancer Ctr. and Ben-Gurion Univ., Israel. (89.44)

3:15 Distinct Roles of Rab27a in lytic granule movement at the plasma membrane and in the cytosol. **D. Liu, T. Meckel and E.O. Long.** NIAID, NIH. (89.47)

3:30 Protein-DNA complex is the major malaria parasite component that activates dendritic cells. **X. Wu, N.M. Gowda, S. Kumar and C. Gowda.** Penn State Univ. Col. of Med. (89.60)

124. REGULATION OF DENDRITIC CELLS AND MYELOID SUPPRESSOR CELLS

Block Symposium

MON. 1:45 PM—BCC ROOM 307

CHAIR: *S. Kovats*

COCHAIR: *P.A. Morel*

1:45 Adenosine promotes de novo generation of Th17 Cells via the dendritic cell A_{2B} adenosine receptor.

J.M. Wilson, S.G. Black, J. Linden and P.B. Ernst. Univ. of Virginia and La Jolla Inst. for Allergy & Immunol. (98.7)

2:00 Estrogen receptor signaling promotes monocyte activation and differentiation upon inflammation in vivo.

S. Bajana, S. Turner and S. Kovats. Oklahoma Med. Res. Fndn. (98.20)

2:15 Administration of dendritic cells signaled via the neurokinin 1 receptor favors type-1 cellular immunity by mechanisms involving exogenous and endogenous dendritic cell populations. **B.M. Janelins, A.R. Mathers, O.A. Tkacheva, G. Erdos, W.J. Shufesky, A.E. Morelli and A.T. Larregina.** Univ. of Pittsburgh Sch. of Med. (98.12)

2:30 SHP-1 is a central regulator of dendritic cell function. **I. Ramachandran, W. Song and J. Levitt.** Baylor Col. of Med. (98.3)

2:45 Abrogation of tolerance with Flt3L requires CD154 expression. **P. Gurung and T.S. Griffith.** Univ. of Iowa. (98.9)

3:00 Developing regulatory dendritic cells with the pregnancy estrogen estriol. **D.C. Muth, C.L. Taylor, C.C. Whitacre, P.N. Boyaka and T.L. Papenfuss.** Ohio State Univ. (98.11)

3:15 Regulatory function of myeloid-derived suppressor cells is restricted to inflammatory site. **J.M. Haverkamp. And T.L. Ratliff.** Purdue Univ. and Univ. of Iowa. (98.25)

3:30 Murine AIDS and the role of PD-1, PD-L1 and IL-10 in the development of LP-BM5 retrovirus induced CD11b+GR-1+ suppressor cells. **K.A. Green and W.R. Green.** Dartmouth Med. Sch. (98.26)

148. HEMATOPOIESIS AND B CELL DEVELOPMENT IN MOUSE AND MAN

Block Symposium

TUE. 8:00 AM—BCC ROOM 321-323

CHAIR: *K.J. Payne*

COCHAIR: *R. Pelayo*

8:00 Cell intrinsic E47 is required for stem cell self-renewal and differentiation but is dispensable for short-term myeloid development. **L. Borghesi, Q. Yang and B. Esplin.** Univ. of Pittsburgh Sch. of Med. and Univ. of Oklahoma Hlth. Sci. Ctr. (36.2)

8:15 Regulation of hematopoietic stem cell quiescence by TXNIP. **I. Choi, M. Jeong and S. Yoon.** KRIBB, Republic of Korea. (36.1)

8:30 B cell lineage progression and identity are impeded synergistically in *EBF1* and *Runx1* haploinsufficient mice. **K. Lukin, S. Fields, L. Guerretaz, D. Lopez, R. Mansson, M. Cherrier, J. Cambier, A. Feeney, M. Sigvardsson and J. Hagman.** Natl. Jewish Hlth., Linkoping Univ., Sweden and Scripps Res. Inst. (36.13)

8:45 Aicda inhibits B-cell development. **M. Kuraoka and G. Kelsoe.** Duke Univ. Med. Ctr. (36.12)

9:00 Molecular basis for loss of VH4-encoded pre-B cells in mutant rabbits. **G.R. Robbins and K.L. Knight.** Loyola Univ. Chicago. (36.7)

9:15 An essential function of FADD in hematopoietic stem cells and progenitors. **J. Zhang and S. Rosenberg.** Thomas Jefferson Univ. (36.10)

9:30 Developmental targets of IL-7 and Flt ligand in human B cell production. **T. Milford, I. Baez, S. Dovat and K.J. Payne.** Loma Linda Univ. and Univ. of Wisconsin, Madison. (36.8)

9:45 Analysis of human immunoglobulin gene repertoire in NOD/scid IL2R⁰ null mice engrafted with human cord blood derived hematopoietic stem cells. **H. Chang, S. Biswas, A.S. Tallarico, P.T. Sarkis and W.A. Marasco.** Harvard Med. Sch. (36.14)

TUESDAY BLOCK SYMPOSIA

149. MOLECULAR REGULATION OF INFLAMMATORY DISEASES

Block Symposium

TUE. 8:00 AM—BCC ROOM 310

CHAIR: *L.M. Bradley*

COCHAIR: *S.J. Turley*

8:00 Suppression of liver injury through inhibition of MyD88 signaling in a mouse model of fulminant hepatitis by 18 β -glycyrrhetic acid. **J. Xu and Y. Zhang.** Shanghai Inst. of Immunol., Institutes of Med. Sci., Shanghai Jiao Tong Univ. Sch. of Med., China. (142.11)

8:15 Resveratrol induces myeloid-derived suppressor cells (MDSCs) and down-regulates CXCR3+ T cell expression and NF- κ B activity to abrogate chronic colitis in IL-10 $^{-/-}$ mice. **U.P. Singh, N.P. Singh, B. Singh, L.J. Hofseth, R.L. Price, M. Nagarkatti and P.S. Nagarkatti.** Univ. of South Carolina, Emory Univ. and South Carolina Col. of Pharmacy. (142.10)

8:30 Nuclear Factor- κ B is a potential therapeutic target in cystitis. **E. Vykhovanets, O. Vykhovanets, L.E. Ponsky, E. Cherullo and S. Gupta.** Case Western Reserve Univ. and Univ. Hosp. Case Med. Ctr. (142.9)

8:45 Regulation of the Receptor Activator of NF- κ B Ligand (RANKL)-induced activation of the alternative NF- κ B pathways by interleukin-4 (IL-4). **M. Yu, J.L. Morenom and A.D. Keegan.** Univ. of Maryland, Baltimore and FDA. (142.8)

9:00 NKG2D/ligands-mediated immune activation promotes atherosclerosis. **M. Xia, K. Yang, N. Guerra, G.K. Sukhova, C.K. Miller, G. Shi, D.H. Raulet and N. Xiong.** Pennsylvania State Univ., Univ. of California, Berkeley, Brigham and Women's Hosp. and Harvard Med. Sch. (142.7)

9:15 Early complement activation through alternative pathway significantly correlates to myocardial injury in patients undergoing cardiac surgery. **M. Zhang, Y.J. Hou, K. Gulaya, D.C. Lee, J. Lee, J. Rushbrook, W. Ko and K. Shevde.** SUNY-Downstate Med. Ctr. (142.6)

9:30 Regulation of the expression of cyclooxygenases and production of PGI₂ and PGE₂ in human coronary artery endothelial cells by curcumin. **X. Tan, E.M. Poulouse, B. Zhu, D.J. Stechschulte and K.N. Dileepan.** Univ. of Kansas Med. Ctr. (142.5)

9:45 Endotoxin tolerance represents a state of alternative polarization in mononuclear cells. **O. Pena, D. Raj, J. Pistolic, C.D. Fjell and R.E. Hancock.** Univ. of British Columbia, Canada. (142.4)

150. REGULATION OF AUTOIMMUNE RESPONSES II

Block Symposium (Late-Breaking Abstracts)

TUE. 8:00 AM—BCC ROOM 307

CHAIR: *P. Ohashi*

COCHAIR: *K. Tung*

8:00 Regulation of dendritic cell function and autoimmunity by microRNA-155. **E.F. Lind, D. Dissanayake and P.S. Ohashi.** Ontario Cancer Inst., Canada and Univ. of Toronto, Canada. (83.29)

8:15 Delayed central tolerance of IGRP specific T cells is mediated by IGRP-expressing peripheral dendritic cells. **B. Krishnamurthy, S. Fynch, K. Graham, H. Thomas, P. Santamaria and T. Kay.** St. Vincent's Inst., Australia and Julia McFarlane Diabetes Res. Centre, Canada. (83.28)

8:30 ST2 deficiency enhances the severity of Th1/Th-17 mediated inflammation. **M.L. Lukic, V. Volarevic, E. Mensah-Brown and A. Shahin.** Fac. of Med. and Hlth. Sci., UAE Univ., United Arab Emirates and Univ. of Kragujevac, Serbia. (83.27)

8:45 Th17 polarized cells from NOD mice following mycobacterial adjuvant immunotherapy delay type 1 diabetes development. **E. Nikoopour, J. Schwartz, B. Huszarik, C. Sandrock, O. Kroughly, E. Lee-Chan and B. Singh.** Univ. of Western Ontario, Canada and Robarts Res. Inst., Canada. (83.26)

9:00 15d-PGJ2 ameliorates collagen-induced arthritis by convergence of Th17 to induced-Tregs. **M.H. Napimoga, V. Carregaro, S.M. Vieira, R. Grespan, J.S. Silva and F.Q. Cunha.** Univ. of Uberaba, Brazil and Univ. of São Paulo, Brazil. (83.1)

9:15 Ag specific T effector (TE), Ag specific Foxp3+ regulatory T cells (Treg), and immune complex (IC) interact in a special testicular microenvironment and promote disease progression in a new spontaneous autoimmune orchitis (EAO) model. **K. Tung, A. Paul, H. Qiao, C. Grafer, J. Li, P. Pramoonjago, J. Sparks, E. Bui and W. Sun.** Univ. of Virginia. (83.25)

9:30 Regulatory T cells control CNS-infiltration of autoreactive T cells during viral infection without affecting the antiviral immune response. **L. Cervantes-Barragan, S. Firner, R. Züst, C. Prodingler, I. Bechmann, T. Sparwasser, V. Thiel and B. Ludewig.** Kantonal Hosp. St Gallen, Switzerland, Johann Wolfgang Goethe Univ., Germany and TWINCORE, Centre for Exptl. and Clin. Infection Res., Germany. (83.24)

9:45 Sex hormone-independent capacities of female hematopoietic cells from lupus-prone mice. **T.N. Jorgensen, A. David, M. MacLeod, A. Johnson, J. Kappler and P. Marrack.** Cleveland Clin., Lerner Res. Inst. and Natl. Jewish Med. and Res. Ctr. (83.23)

151. TECHNOLOGICAL INNOVATIONS IN IMMUNOLOGY

Block Symposium

TUE. 8:00 AM—BCC ROOM 314

CHAIR: *J.D. Powell*

COCHAIR: *R.H. Scheuermann*

8:00 Extracting cell-type-specific gene expression differences from complex tissues. **S. Shen-Orr, R. Tibshirani, P. Khatri, A.A. Gaidarski, D.L. Bodian, F. Staedtler, N.M. Perry, T. Hastie, M.M. Sarwal, M.M. Davis and A.J. Butte.** Stanford Univ., Novartis Pharmaceuticals Corp, Novartis Institutes for Biomed. Res., Switzerland and Howard Hughes Med. Inst. (144.30)

8:15 Automated determination of optimal microarray data processing. **R.H. Scheuermann, Y. Kong, S. Wang, Y. Qian and M. McGee.** Univ. of Texas Southwestern Med. Ctr. and Southern Methodist Univ. (144.11)

8:30 qQuantitative phosphoproteomic dissection of the role of Zap-70 in T cell signaling using mass spectrometry. **A. Salomon, V. Nguyen and L. Cao.** Brown Univ. (144.9)

8:45 Large scale T cell receptor repertoire sequencing of murine CD8+ T cells. **A.S. Buntzman, B.G. Vincent, S.P. Steele, J. Walsh, T.B. Kepler and J.A. Frelinger.** Univ. of North Carolina, Chapel Hill and Duke Univ. Sch. of Med. (144.5)

9:00 Selective activation of antigen-specific T cells by nanoparticles. **Y. Lo, M. Edidin and J. Powell.** Johns Hopkins Sch. of Med. and Johns Hopkins Univ. (144.22)

9:15 Bio-inspired controlled release for regulatory T cell recruitment in vivo. **S. Jhunjunwala, G. Raimondi, S.J. Hall, S.H. Thorne, A.W. Thomson and S.R. Little.** Univ. of Pittsburgh. (144.3)

9:30 SA-4-1BBL as an immune modulator and vehicle to deliver antigens into dendritic cells for effective cancer immunotherapy. **R.K. Sharma, R. Schabowsky, A.K. Srivastava, E.S. Yolcu, K.G. Elpek, H. Zhao, S. Madireddi and H. Shirwan.** Univ. of Louisville. (144.25)

153. CELLULAR MECHANISMS OF IMMUNITY

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—BCC ROOM 308

CHAIR: *K.A. Hogquist*

COCHAIR: *D.L. Wiest*

10:15 Hematopoietic stem and progenitor cell defects in the Ts65Dn mouse model of Down Syndrome: implications for the role of oxidative stress in immune dysfunction. **L. Lorenzo, H. Chen, S. Clark, P. Yarowsky and M.S. Williams.** Univ. of Maryland, Baltimore. (36.58)

10:30 Small molecule enhancers of peptide binding to MHC class II: implications for DM function. **M.J. Call, X. Xing, G.D. Cuny, R.L. Stein and K.W. Wucherpfennig.** Harvard Med. Sch. and Harvard Neurodiscovery Ctr. (130.40)

10:45 Thymocyte autoreactivity and altered thymic epithelial development in the absence of CD28-CD80/86 and CD40-CD40L interactions. **J.A. Williams, J. Zhang, D. Klug, T. Nitta, M.J. Kruhlak, S.O. Sharrow, L. Granger, A. Adams, R. Gress, Y. Takahama and R.J. Hodes.** NCI, NIH, Univ. of Tokushima, Japan and NIA, NIH. (36.69)

11:00 Id3 is a critical mediator of lineage commitment and functional maturation of $\alpha\beta$ -T cells. **S. Lee, J. Zuniga-Pflucker and D.L. Wiest.** Fox Chase Cancer Ctr. and Univ. of Toronto, Canada. (36.63)

11:15 IL-10 interruption of dendritic cell (DC) differentiation during the monocyte-to-DC transition is associated with increased levels of LC3, mature autophagosome formation, and survival of monocyte-macrophage-like cells. **F. Santiago-Schwarz, A. Valentino, C. Martin and C. DiMaio.** Farmingdale State Col. (134.21)

11:30 Inducible ablation of Langerhans cells enhances skin immune responses. **D.H. Kaplan, A. Bobr, I. Olvera-Gomez, K.A. Hogquist and B.Z. Igyarto.** Univ. of Minnesota. (48.15)

11:45 CD23 dependent transcytosis of IgE and immune complex across the polarized human respiratory epithelial cells. **X. Zhu, S. Palaniyandi, Z. Li and D.H. Conrad.** Univ. of Maryland and Virginia Commonwealth Univ. (141.2)

12:00 Stat3 and Th17-mediated colitis promotes regional tumorigenesis in response to a common commensal bacterium: role of Foxp3+ Treg/Th17 balance. **A. Geis, J. Wolfe, S. Wu, X. Wu, D.M. Pardoll, C.L. Sears and F. Housseau.** Johns Hopkins Univ. Sch. Of Med. (90.17)

154. IMMUNE SYSTEM REGULATION

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—BCC ROOM 307

CHAIR: *D.H. Conrad*

COCHAIR: *D. Billadeau*

10:15 ITAM-containing adaptors regulate NKG2D-mediated cytotoxicity in human NK cells. **J.L. Neff, A.T. Bida, R.A. Schoon, C.J. Dick, P.J. Leibson and D.D. Billadeau.** Mayo Clin. Col. of Med. (138.15)

10:30 Structural basis of DAP12-associated intramembrane immunoreceptor assembly. **M.E. Call, K.W. Wucherpfennig and J.J. Chou.** Harvard Med. Sch. (138.16)

10:45 A systemic age dependent defect in immune-cell signaling response induced by inflammation. **S. Shen-Orr, D. Furman, B.A. Kidd, H.T. Maecker, C.L. Dekker, A.J. Butte and M.M. Davis.** Stanford Univ. and Howard Hughes Med. Inst. (138.2)

11:00 An orexigenic hormone ghrelin enhances LPS-induced IL-10 production in human peripheral blood-derived macrophages. **D. Baatar, J. Lee, M. Brill, A. Lustig, A. Carter and D.D. Taub.** NIA, NIH. (138.12)

11:15 TULA-family proteins are key to the regulation of T-cell driven inflammatory responses. **T. Newman, N. Carpino, D. Ganea, F. Safadi, J. Yen and A. Tsygankov.** Temple Univ. and Stony Brook Univ. (138.13)

11:30 Licensing of naïve T cells for rapid TNF production. **B. Priyadharshini, R.M. Welsh, D.L. Greiner, R.M. Gerstein and M.A. Brehm.** Univ. of Massachusetts Med. Sch. (138.14)

11:45 IL-28 (IFN- λ) inhibits Th2-mediated allergic airway inflammation through the modulation of dendritic cell function. **C. Übel, O. Kolsida, M. Hausding, E. Andreakos and S. Finotto.** UK Erlangen, Germany, Biomed. Res. Fndn. Acad., Greece and Inst. of Molec. Med., Germany. (138.11)

12:00 Signaling through kainate receptors enhances murine B cell proliferation and Ig production. **N. Chaimowitz, J. Sturgill and D. Conrad.** Virginia Commonwealth Univ. (138.17)

155. INITIATION OF AUTOIMMUNITY: ENVIRONMENTAL TRIGGERS

Block Symposium

TUE. 10:15 AM—BCC ROOM 310

CHAIR: *S. Bolland*

COCHAIR: *C.S. Via*

10:15 Inhibition of type 1 diabetes by a *Lactobacillus johnsonii* mediated Th17 bias. **K.K. Lau, P. Benitez, A. Ardisone, G. Lorca, N. Li, D. Sankar, J. Neu, M. Atkinson and J. Larkin.** Univ. of Florida. (93.4)

10:30 Bacille Calmette Guérin (BCG) can induce Kawasaki disease like features in programmed death-1 gene knockout mice. **J. Chun, D. Kang, B. Jeon and D. Kim.** Wonju Christian Hosp., Republic of Korea, Kwandong Univ. Col. of Med., Republic of Korea and Yonsei Univ. Col. of Med., Republic of Korea. (93.8)

10:45 Transgenic Expression of the RNA-sensing molecule MDA-5 accelerates autoimmunity in the lupus-prone Fc γ R2-deficient mouse. **S.P. Crampton, J.A. Deane, K. Hasty, O. Otubusin and S. Bolland.** NIAID, NIH, and Genomics Inst. of the Novartis Res. Fndn. (93.20)

11:00 Increased autoimmune disease activity in MRL-lpr mice following influenza infection. **S.R. Crowe, J.A. James, E.V. Edwards and J.A. Anderson.** Oklahoma Med. Res. Fndn. and Oklahoma Univ. Hlth. Sci. Ctr. (135.21)

11:15 Donor CD8 T cell activation is critical for sex-based differences in lupus-like disease in DBA-into-F1 mice. **A.D. Foster, M. Haas, I. Puliaeva, K. Soloviova, R. Puliaev and C.S. Via.** Uniformed Serv. Univ. of Hlth. Sci. and Cedars-Sinai. (93.31)

11:30 Mucopolysaccharidosis IIIB, a lysosomal storage disease, triggers a pathogenic neuroautoimmune response. **H. Fu, S. Killedar, J. DiRosario, P.G. Popovich and D.M. McCarty.** Nationwide Children's Hosp. and Ohio State Univ. (93.19)

11:45 An inducible antigen system to study endogenous CD8 T cell tolerance. **E.R. Jellison, M.J. Turner and Lefrançois.** Univ. of Connecticut Hlth. Ctr. (93.11)

12:00 CIKS/Act1 is required for collagen-induced arthritis. **P. Pisitkun, E. Claudio, N. Ren, H. Wang, S. Bolland and U. Siebenlist.** NIAID, NIH. (93.3)

156. INNATE AND ADAPTIVE IMMUNITY TO INFECTION

Block Symposium (Late-Breaking Abstracts)

TUE. 10:15 AM—BCC ROOM 309

CHAIR: *D.A. Holowka*

COCHAIR: *D.J. Topham*

10:15 IL-17 is critical for the generation of protective Th1 immunity against intracellular pathogens. **Y. Lin, R. Gopal and S. Khader.** Univ. of Pittsburgh. (45.1)

10:30 *Staphylococcus aureus* biofilm-mediated infections: characterization of the host adaptive immune response and its role in chronic infection. **R. Prabhakara, J. Harro, M. Harris, J.G. Leid, J.W. Costerton and M.E. Shirtliff.** Univ. of Maryland, Baltimore, Northern Arizona Univ., Allegheny-Singer Res. Inst. and Allegheny Gen. Hosp. (45.2)

10:45 Long-term maintenance of protective memory CD8⁺ T cells in the absence of CD4⁺ T cells in mice vaccinated against *Blastomyces dermatitidis*. **S.G. Nanjappa, E. Heninger, M. Wuthrich and B.S. Klein.** Univ. of Wisconsin, Madison. (45.3)

11:00 Recycling endosomal membranes contribute to *Toxoplasma gondii* parasitophorous vacuole formation in mast cells. **N.L. Smith, B.A. Butcher, E.Y. Denkers, B.A. Baird and D.A. Holowka.** Cornell Univ. (45.4)

11:15 *MviN* mediates *Francisella tularensis* virulence through the inhibition of inflammasome activation. **T.K. Ulland, B.W. Buchan, B.D. Jones, W.M. Nauseef and F.S. Sutterwala.** Univ. of Iowa and VAMC. (45.5)

11:30 IRF3 is an integral component in the host defense against *Pseudomonas aeruginosa* lung infection in mice. **T. Lin and S. Carrigan.** Dalhousie Univ., Canada. (45.6)

11:45 Syngeneic bone marrow transplant increases IL-17 responses and susceptibility to respiratory syncytial virus infection. **D.M. Lindell, M.P. White, A.A. Berlin and N.W. Lukacs.** Seattle Childrens Res. Inst., Univ. of Washington and Univ. of Michigan. (45.7)

12:00 A unique population of tissue-memory CD4⁺ T cells in the airways after influenza infection that is dependent on the integrin VLA-1. **D.J. Topham and T.J. Chapman.** Univ. of Rochester. (45.8)

157. MECHANISMS OF DISEASE IN EXPERIMENTAL

MODELS OF ALLERGY

Block Symposium

TUE. 10:15 AM—BCC ROOM 321-323

CHAIR: *A.V. Fedulov*

COCHAIR: *N. Zimmermann*

10:15 Maternal exposure to diesel exhaust particles alters neonatal dendritic cell DNA methylation profiles and skews function towards pro-Th2 responses. **A.V. Fedulov, Z. Yang and L. Kobzik.** Harvard Sch. Of Publ. Hlth. (141.13)

10:30 PU.1 expression in T cells is required for the development of IL-9-producing T cells in allergic inflammation. **S. Sehra, H. Chang, R. Goswami, L. Han, E.T. Nguyen, S.L. Nutt and M.H. Kaplan.** Indiana Univ. Sch. of Med. and Walter and Eliza Hall Inst. of Med. Res., Australia. (141.14)

10:45 Notch ligand Delta-like 4 regulates development and pathogenesis of allergic airway responses by modulating IL-2 production and Th2 immunity. **S. Jang, M. Schaller and N.W. Lukacs.** Univ. of Michigan. (141.15)

11:00 IL-13 is required and sufficient for airway acidification in allergic airway inflammation. **N. Zimmermann, M.E. Rothenberg and L.C. Kottyan.** Cincinnati Children's Hosp. (141.16)

11:15 A non-redundant role for Serpinb3a in the induction of mucus production in asthma. **U. Sivaprasad, D. Askew, M. Ericksen, A. Gibson, M. Stier, E. Brandt, S. Bass, M. Lindsey, M. Daines, J. Chakir, K. Stringer, S. Wert, J. Whitsett, T. LeCras, B. Aronow, M. Wills-Karp, G. Silverman and G. Khurana Hershey.** Cincinnati Children's Hosp. Med. Ctr., Children's Hosp. of Pittsburgh, Univ. of Arizona and Centre de Recherche de l'Hôpital Laval, Canada. (141.17)

11:30 Airway epithelium response to IFN- γ regulates allergic airway inflammation. **C. Mitchell, K. Provost, N. Niu, R. Homer and L. Cohn.** Yale Univ. (91.7)

11:45 Innate imprinting of resident alveolar macrophages by a preceding allergic bronchial inflammation increases the inflammatory reactivity through autocrine IFN- β . **T. Naessens, S. Vander Beken, S. De Koker, S. Lienenklaus, L. Vakaet and J. Grooten.** Ghent Univ., Belgium, Helmholtz Centre for Infection Res., Germany and Ghent Univ. Hosp., Belgium. (141.18)

12:00 Particulate allergens exacerbate allergic asthma via extended localization within lipid raft enriched compartments in mast cells. **C. Jin, C.P. Shelburne, G. Li, E.N. Potts, K.J. Riebe, G.D. Sempowski, M.W. Foster and S.N. Abraham.** Duke Univ. (141.19)