

Publications generated using the Flow Cytometry Facility at KSU

Biochemistry, Dept. of College of Arts and Science

Michael Kanost, Professor

Willott, E., Tenczek, T., Thrower, L., and Kanost, M.R. (1994) Immunochemical identification of insect hemocyte populations: Monoclonal antibodies which distinguish four major hemocyte types in *Manduca sexta*. *Eur. J. Cell Biol.* 65:417-423.

Zhao, L. and Kanost, M.R. (1996) In search of a function for hemolin, a hemolymph protein from the immunoglobulin superfamily. *J. Insect Physiol.* 42: 73-79.

Tenczek, T., Willott, E., and Kanost, M.R. (1998) Preparation of monoclonal antibodies to insect hemocytes. In "Techniques in Insect Immunology," (A. Wiesner, G.B. Dunphy, V. J. Maramaras, I. Morishima, M. Sugumaran, M. Yamakawa, eds) SOS Publications, Fair Haven, NJ, pp. 21-32.

Ma, C. and Kanost, M.R. (2000) A beta-1,3-glucan-recognition protein from an insect, *Manduca sexta*, agglutinates microorganisms and activates the phenoloxidase cascade. *J. Biol. Chem.* 275: 7505-7514.

Dolores J. Takemoto, Professor

Wagner LM and Takemoto DJ. Protein Kinase C Alpha and Gamma in N/N 1003a Rabbit Lens Epithelial cell differentiation. *Mol. Vis.* 2001, 7:57-62.

Gonzalez, K; McVey, S.; Cunnick, J.; Udovichenko, I.; Takemoto, D. J. "Acridine Orange Differential Staining of Total DNA and RNA in Normal and Galactosemic Lens Epithelial Cells in Culture Using Flow Cytometry" *Curr. Eye Res.*, 1995, 14, 269-273.

Division of Biology

Stephen K. Chapes

Fleming, S.D., C.F. Rosenkrans, and S.K. Chapes. 1990. Test of the antiorthostatic suspension model on mice: Effects of the inflammatory cell response. *Aviat. Space and Environmental Med.* 61:327-332.

Flebbe, L.M., S.K. Chapes and D.C. Morrison. 1990. Activation of C3H/HeJ macrophage tumoricidal activity and cytokines release by R-chemotype lipopolysaccharide preparation: Differential effects of IFN- γ . *J. Immunol.* 145:1505-1511.

Rosenkrans, C.F. and S.K. Chapes. 1991. Macrophage binding of cells resistant and sensitive to contact-dependent cytotoxicity. *Cell. Immunol.* 133:187-195.

Fleming, S.D., L.S. Edelman and S.K. Chapes. 1991. Effects of corticosterone and microgravity on inflammatory cell production of superoxide. *J. Leukoc. Biol.* 50:69-76.

- Fleming, S.D., J.J. Iandolo and S.K. Chapes. 1991. Murine macrophage activation by staphylococcal exotoxins. *Infect. Immun.* 59:4049-4055.
- Chapes, S.K., and L.J. Takemoto. 1991. Effects of murine leukemia virus *env* gene proteins on macrophage-mediated cytotoxicity *in vitro*. *Life Science Advances* 10:9-21.
- Chapes, S.K., D.R. Morrison, J.A. Guikema, M.L. Lewis and B.S. Spooner. 1992. Cytokine secretion by immune cells in space. *J. Leukoc. Biol.* 52:104-110.
- Kopydlowski, K.M., D.S. McVey, K.M. Woods, J.J. Iandolo and S.K. Chapes. 1992. Effects of antiorthostatic suspension and corticosterone on macrophage and spleen cell function. *J. Leukoc. Biol.* 52:202-208.
- Chitko-McKown, C.G., D.N. Reddy, S.K. Chapes, R.D. McKown and F. Blecha. 1992. Immunological characterization of pulmonary intravascular macrophages. *Regional Immunol.* 4:236-244.
- Woods, K.M. and S.K. Chapes. 1993. Distinct target cell phenotypes of TNF-mediated killing and their relationship to apoptosis. *J. Leukoc. Biol.* 53: 53:37-44.
- Chapes, S.K., S.M. Hoynowski, K.M. Woods, J.W. Armstrong, A.A. Beharka, and J.J. Iandolo. 1993. Staphylococcus-mediated T cell activation and spontaneous natural killer cell activity in the absence of major histocompatibility complex class II molecules. *Infect. Immun.* 61:4013-4016.
- Armstrong, J.W., K.A. Nelson, S.J. Simske, M.W. Luttges, J.J. Iandolo and S.K. Chapes. 1993. Skeletal unloading causes organ specific changes in immune cell responses. *J. Applied Physiol.* 75:2734-2739.
- Chapes, S.K., A.M. Mastro, G. Sonnenfeld and W.D. Berry. 1993. Antiorthostatic suspension as a model for the effects of space flight on the immune system. *J. Leukoc. Biol.* 54:227-235.
- Chapes, S.K., D.R. Morrison, J.A. Guikema, M.L. Lewis and B.S. Spooner. 1994. Production and action of cytokines in space. *Adv. Space Res.* 14:5-9.
- Woods, K.M. and S.K. Chapes. 1994. Abrogation of TNF-mediated cytotoxicity by space flight involves protein kinase C. *Exp. Cell Res.* 211:171-174.
- Armstrong, J. W. and S.K. Chapes. 1994. Effects of extracellular matrix proteins on macrophage differentiation, growth and function: Comparison of liquid and agar culture systems. *J. Exp. Zoo.* 269:178-187.
- Chapes, S.K., A.A. Beharka, M.E. Hart, M.S. Smeltzer, and J.J. Iandolo. 1994. Differential RNA regulation by staphylococcal enterotoxins A and B in murine macrophages. *J. Leukoc. Biol.* 55:523-529.
- Armstrong, J.W., S.J. Simske, A.A. Beharka, S. Balch, M.W. Luttges and S.K. Chapes. 1994.

- Class I and class II major histocompatibility (MHC) molecules play a role in bone marrow-derived macrophage development. *J. Leukoc. Biol.* 55:658-661.
- Armstrong, J.W., S. Balch and S.K. Chapes 1994. Interleukin-2 therapy reverses some immunosuppressive effects of skeletal unloading. *J. Applied Physiol.* 77:584-589.
- Beharka, A.A., J.W. Armstrong, J. J. Iandolo and S.K. Chapes. 1994. Binding and activation of MHC class II - deficient macrophages by staphylococcal exotoxins. *Infect. Immun.* 62:3907-3915.
- Woods, K.M., H. Fattaey, T.C. Johnson, and S. K. Chapes. 1994. Selective Cytotoxicity of transformed cells but not normal cells by a sialoglycopeptide growth regulator in the presence of tumor necrosis factor. *Biochem. Biophys. Res. Comm.* 205:215-220.
- Armstrong, J.W., R.A. Gerren and S.K. Chapes. 1995. The effect of space and parabolic flight on macrophage haematopoiesis and function. *Exp. Cell Res.* 216:160-168.
- Kielian, T.L., C.R. Ross, D.S. McVey, S.K. Chapes and F. Blecha. 1995. Lipopolysaccharide modulation of CD14 on porcine alveolar macrophages. *J. Leukoc. Biol.* 57:581-586.
- Beharka, A.A., J.J. Iandolo and S.K. Chapes. 1995. Staphylococcal enterotoxins bind H-2D^b molecules on macrophages. *Proc. Natl. Acad. Sci. USA.* 92:6294-6298.
- Chapes, S.K. and A. A. Beharka. 1995. Lipopolysaccharide is required for the lethal effects of enterotoxin B after D-galactosamine sensitization. *J. Endotoxin Res.* 2:263-271.
- Funderburgh, J.L., R.R. Mitschler, M.L.Funderburgh, M.R. Roth, S.K. Chapes and G.W. Conrad. 1997. Macrophage receptors for lumican, a corneal keratan sulfate proteoglycan. *Invest. Ophthalmol. and Visual Sci.* 38:1159-1167.
- Iandolo, J.J. and S.K. Chapes. 1997. The Exfoliative Toxins of *Staphylococcus aureus*. In: Superantigens: Molecular Biology, Immunology and Relevance to Human Disease and Basic Biology, Ed by; D.Y. Leung, B.T. Huber and P.M. Schlievert; Marcel Dekker, Inc. New York. pp. 231-255.
- Chapes, S.K. and A.A. Beharka. 1998. *Salmonella* infections in the absence of the major histocompatibility complex II. *J. Leukoc. Biol.* 63:297-304.
- Beharka, A.A., J.W. Armstrong, and S.K. Chapes. 1998. Macrophage cell lines derived from major histocompatibility complex II-negative mice. *In Vitro Cell and Developmental Biology.* 34:499-507.
- Chapes, S.K. and A.R. Herpich. 1998. Complex high affinity interactions occur between MHCI and superantigens. *J. Leukoc. Biol.* 64:587-594.
- Forsman, A.D., A.R. Herpich and S.K. Chapes. 1999. Improved soft-agar colony assay in a fluid processing apparatus. *In Vitro Cell and Developmental Biology.* 35:55-60.

- Chapes, S.K. S.J. Simske, G. Sonnenfeld, E.S. Miller, R.J. Zimmerman. 1999. Effects of space flight and PEG-IL-2 on rat physiological and immunological responses. *J. Applied Physiol.* 86:2065-2076.
- Monday, S., G.Vath, W. Ferens, C. Deobald, J. Rago, P.J. Gahr, D.D. Monie, J.J. Iandolo, S.K. Chapes, M. Jenkins, W.C. Davis, D. Ohlendorf, P. Schlievert and G.A. Bohach. 1999. Unique superantigen activity of staphylococcal exfoliative toxins. *J. Immunol.* 162:4550-4559.
- Chapes, S.K., S.J. Simske, A.D. Forsman, T.A. Bateman and R.J. Zimmerman. 1999. Effects of space flight and IGF-1 on immune function. *Adv. in Space Research.* 23:1955-1964.
- Wright, A.D. and S.K. Chapes. 1999. Staphylococcal enterotoxin A bound to MHC class I requires cross linking for the induction of TNF- α . *Cellular Immunol.* 197:129-135.
- Wright, A.D. and S.K. Chapes. 1999. LPS Sensitivity in recombinant mice lacking functional alleles at MHCII, *Lps* and *Nramp1* genes. *J. Endotoxin Res.* 5:297-308.
- Chapes, S.K., D.A. Mosier, A.D. Wright and M.L. Hart. 2001. MHCII, *Tlr4* and *Nramp1* genes control host pulmonary resistance against the opportunistic bacterium *Pasteurella pneumotropica*. *J. Leukoc. Biol.* 69:381-386.
- Chapes, S.K. A.D. Wright, A.A. Beharka. 2001. Superantigen activation of macrophages. In: *Staphylococcal Disease and Infection*, Ed by; A.L. Honeyman, M. Bendinelli, H. Friedman, Kluwer Academic/Plenum. New York. July Press Date.

Scott Todd, Assistant Professor

VanCompernelle, S. E., S. Levy, S.C. Todd. 2001. Anti-CD81 activates LFA-1 on T cells and promotes T cell-B cell collaboration. *Eur. J. Immunol.* 31:823-831.

Judy Roe, Assistant Professor

"Arabidopsis TOUSLED protein kinase function in nuclear events" Hashimul Ehsan, Mitchell Bowen, Jean-Philippe Reichheld, Leila Nyberg, and Judith L. Roe. 12th International Conference on Arabidopsis Research, Madison, WI. Invited Speaker

Hashimul Ehsan, Mitchell Bowen, Jean-Philippe Reichheld, Leila Nyberg, and Judith L. Roe. Correspondence: Synchronization of Arabidopsis suspension culture cells. Manuscript in preparation.

Joseph S. Murray, Assistant Professor (Scientist at University of Kansas 1999-2000)

Schountz T, Kasselmann JP, Martinson FA, Brown L, Murray JS. 1996. MHC genotype controls the capacity of ligand density to switch T helper (Th)-1/Th-2 Priming in Vivo. 157:3893-3901.

Schountz T, Kasselmann JP, Ford SR, Murray JS. 1996. Unique T cell antagonist properties of the exact self-correlate of a peptide antigen revealed by self-substitution of non-self positions in the peptide sequence. *Cell. Immunol.* 168:193.

Murray JS, Kasselmann FP, Schountz T. 1995. High density presentation of an immunodominant minimal peptide on B cells is MHC-linked to Th1-like immunity. *Cell. Immunol.* 166:9.

Murray JS, Ferrandis-Edwards D, Wolfe CJ, Schountz T. 1994. Major histocompatibility complex regulation of T helper functions mapped to a peptide C-terminus that controls ligand density. *Eur. J. Immunol.* 24:2337.

Terry C. Johnson, Director of Center for Basic Cancer Research

Betz NA, Fattaey HK, Westhoff BA, Paulsen AQ, Johnson TC: CeReS-18, a novel cell surface sialoglycopeptide, induces cell cycle arrest and apoptosis in a calcium-sensitive manner. *Breast Cancer Res Treat* 1997; 42:137-148.

Richard A. Consigali, Distinguished Professor

An, K, Fattaey H, Paulsen A, Consigali RA. 2000. Murine Polyoma virus infection of 3T6 mouse cells shows evidence of predominant necrosis and limited apoptosis. *Virus Res.* 2000, 1:81-90.

Department of Clinical Studies, College of Veterinary Medicine

Peter J. Chenoweth, Professor, Coleman Chair in Food Animal Production Medicine

Moravec AA, Rupp GP, Wilkerson MJ and Chenoweth PJ. Assessment of flow cytometry and methods using Sybr-14/Propidium iodide fluorochrome stain with extended, chilled semen from range-type beef bulls. *ASAS/Midwest Proceedings*

Moravec AA Rupp GP, Wilkerson MJ and Chenoweth J. Relationships between flow-cytometric analysis of SYBR-14/Propidium iodide stained sperm and breeding soundness parameters in range-type bulls. *International Congress on Animal Reproduction.*

AA Moravec, GP Rupp, MJ Wilkerson, PJ Chenoweth, AA Assessment of the SYBR-14/Propidium Iodide Staining Method Using Flow Cytometry of Extended, Chilled Bovine Sperm@, NIH Summer Research Program Symposium, Manhattan, KS, August 1999.

AA Moravec, GP Rupp, MJ Wilkerson, PJ Chenoweth, AA Assessment of Flow Cytometry and Methods Using SYBR-14/Propidium Iodide Fluorochrome Stain With Extended, Chilled Semen From Range-Type Beef Bulls@, Kansas State University Fifth Annual Graduate Research Forum, Manhattan, KS, April 2000.

A.A. Moravec, G.P. Rupp, M.J. Wilkerson, P.J. Chenoweth, AA Assessment of Flow Cytometry and Methods Using SYBR-14/Propidium Iodide Fluorochrome Stain With Extended, Chilled Semen From Range-Type Beef Bulls@, American Society of Animal Science Midwestern Section Abstracts, Des Moines, Iowa, p. 54, March 2000. (*J. Anim. Sci.* 78:74 (Abstr. 217)

A.A. Moravec, G.P. Rupp, M.J. Wilkerson, P.J. Chenoweth, AA Assessment of Flow Cytometry and Methods Using SYBR-14/Propidium Iodide Fluorochrome Stain With Extended, Chilled Semen From Range-Type Beef Bulls@, Kansas State University Phi Zeta Research Day Abstracts, Manhattan, KS, March 2000.

A.A. Moravec, G.P. Rupp, M.J. Wilkerson, P.J. Chenoweth, A Relationships Between Flow-Cytometric Analysis of SYBR-14/Propidium Iodide Stained Sperm and Breeding Soundness Parameters in Range-Type Beef Bulls@, 14th International Congress on Animal Reproduction, Stockholm, Sweden, Abstracts Volume 1, 3:7, p. 111, July 2000.

Bonnie R. Rush, Professor, Equine Internal Medicine

Clark-Price SC, Rush BR, Gaughan EM, Cox JH: Rhodococcus equi osteomyelitis in a two-year old Quarter Horse filly. In press.

McCue MC, Davis EG, Cox JH, Rush BR, Wilkerson MJ: Eosinophilic epitheliotropic disease in a Quarter Horse mare. Equine Vet Ed. Submitted. August, 2002.

Rush BR: Clinical use of immunomodulatory agents. Invited review. Equine Veterinary Education. 2001; 3(1) 60-68.

Rush BR: Corticosteroid therapy. In: International Workshop on Equine Chronic Airway Disease. Equine Vet J. 2001;33(1)5-19.

Davis EG, Rush BR, Clark-Price S, Bain FT, Wilkerson MJ: Alloimmune neutropenia in a neonatal foal. Equine Vet Med. In Press, 2002.

Thomsen MM, Davis EG, Cox JH, Rush BR, Wilkerson MJ: Eosinophilic epitheliotropic disease in a Quarter Horse mare. Equine Vet Ed. Submitted. March, 2001.

Flaminio MJBF, Davis EG, Rush BR, Shuman W, Wilkerson, M: Simultaneous flow cytometric determination of phagocytosis and oxidative burst activity of peripheral blood leukocytes in horses. Vet Res. Commun. 2002;26:85-92.

Rush BR: Clinical use of immunomodulatory agents. Invited review. Equine Veterinary Education. 2001; 3(1) 60-68.

Rush BR: Corticosteroid therapy. In: International Workshop on Equine Chronic Airway Disease. Equine Vet J. 2001;33(1)5-19.

Flaminio MJBF, Rush BR, Davis EG, Shuman W, Wilkerson, M: Characterization of peripheral blood and pulmonary leukocyte function in healthy foals. Vet Immunol Immunopathol. 2000:73 267-285.

Flaminio MJBF, Rush BR, Shuman W: Peripheral blood lymphocyte subpopulations and immunoglobulin concentrations in healthy foals and foals with Rhodococcus equi pneumonia. J Vet Intern Med 1999:13(3):206-212.

Flaminio MJBF, Rush BR, Shuman W: Immunologic function in weanling foals after non-specific immunostimulant administration. Vet Immunol Immunopath. 1998:63 303-315.

Rush BR, Flaminio MJBF, Shuman W, Matson CJ: Cytologic evaluation of bronchoalveolar lavage fluid from horses with recurrent airway obstruction after aerosol and parenteral

administration of beclomethasone dipropionate and dexamethasone, respectively. Amer J Vet Res. 1998:59(8) 1033-1038.

Flaminio MJBF, Rush BR, Cox JH, Moore WE: CD4+ and CD8+ lymphopenia in a filly with Pneumocystis carinii pneumonia. Australian Vet J 1998:76(6) 7-10.

Moore BR, Krakowka S, McVey DS, Cummins JM, Robertson JT: Inflammatory markers in bronchoalveolar lavage of Standardbred racehorses with inflammatory airway disease: response to interferon. Equine Vet J 1997:29(2) 142-147.

Moore BR, Cox JH: Diagnostic use of bronchoalveolar lavage in horses. Invited review. Equine Practice. 1996:18(5) 7-15.

Moore BR: Clinical application of interferons in large animal medicine. Leading edge of medicine - A review. J Amer Vet Med Assoc. 1996:208(10) 1711-1715.

Moore BR, Krakowka S, Cummins JM, Robertson JT: Changes in airway inflammatory cell populations in Standardbred racehorses after interferon-alpha administration. Vet Immunol Immunopathol. 1996:49 347-358.

Moore BR, Weisbrode SE, Biller DS, Williams J: Metacarpal fracture associated with lymphosarcoma-induced osteolysis in a horse. J Amer Vet Med Assoc. 1995:207(2) 208-210.

Moore BR, Krakowka S, Robertson JT, Cummins JM: Cytologic evaluation of bronchoalveolar lavage fluid obtained from Standardbred racehorses with inflammatory airway disease. Amer J Vet Res. 1995:56(5) 562-568.

Moore invited speaking engagements resulting from flow cytometric analysis

2001 Dorothy Haverneyer, International Workshop: Equine Immunity and Inflammation
January, 2001. Santa Fe, NM. Invited speaker – Clinical application of flow cytometry.

World Equine Airway Symposium
July, 2001. Edinburgh, Scotland. Keynote speaker - Corticosteroid therapy for heaves.

American College of Veterinary Surgery Forum
October, 2001. Chicago, Ill. Invited speaker – Noninfectious pulmonary disease.

2000 American College of Veterinary Internal Medicine
May, 2000. Seattle, WA. Invited speaker – Corticosteroid therapy for heaves.

International Workshop on Equine Chronic Airway Disease
June, 2000. East Lansing, MI. Invited speaker.

1999 British Equine Veterinary Association – Noninfectious respiratory disease
September, 1999. Harrogate, England. Invited speaker.

Comparative Respiratory Society
October, 1999. Vancouver, Canada. Scientific presentation.

1998 Missouri Veterinary Medical Association – Clinical application of flow cytometry
January, 1998. Osage Beach, MO. Invited speaker.

American College of Veterinary Internal Medicine

May, 1998. San Diego, CA. Invited Speaker

American Veterinary Medical Association
July, 1998. Baltimore, MD. Invited speaker

1997 Washington State Veterinary Medical Association
March, 1997. Pullman, Washington. Invited speaker - Immunomodulation

Dubai International Equine Symposium - Respiratory Disease
March, 1997. Dubai, United Arab Emirates. Invited speaker - Immunomodulation

Equine Respiratory Symposium - Animal Health Trust
October, 1997. Newmarket, England. Invited speaker – Immunostimulant therapy

Comparative Respiratory Society Meeting – Evaluation of immunostimulants
October, 1997. Liege, Belgium. Scientific presentations

Department of Diagnostic Medicine/Pathobiology

Melinda J. Wilkerson, Assistant Professor, Director of Flow Cytometry Facility

Courses designed to use Flow Cytometry research applications

DMP 980 (2 hr), Problems in Immunology, Spring 1999-2000

DMP878 (Fall, 2 – 3 hr), Topics in Flow Cytometry, 2000-2001

Davis EG, Wilkerson MJ, Rush BR: Clinical application of flow cytometry in equine medicine. J Vet Intern Med. 2002;15:404-410.

Wilkerson M.J., Shuman W., Harkin K., Meinkoth J, Kocan A.A. Platelet surface associated IgG and reticulated platelets in dogs with thrombocytopenia. Vet. Clin. Path. 2001;30:141-149.

Wilkerson M.J., Shuman W. Harkin K. Alterations in Normal Canine Platelets during Storage of EDTA-anticoagulated Blood. Vet. Clinical. Pathology. Vet. Clin. Path. 2001;30:107-113.

Wilkerson MJ, Davis EG, Shuman W, Harkin K, Cox J, Rush B. Isotype Specific Antibodies in Horses and Dogs with Immune Mediated Hemolytic Anemia. J. Vet. Intern. Med. 2000: 14:190-196

Flaminio MJB, Davis EG, Rush BR, Shuman W, Wilkerson MJ: Characterization of Peripheral Blood and Pulmonary Leukocyte Function in Healthy Foals. Vet. Immunol. Immunopathol. 2000. 73:267-285.

Hou,L., Wilkerson MJ. Kapil, S. Mosier, D. Shuman, W. Reddy J. Loughin, T. Minocha, H.C. The Effect of Different BVDV Genotypes and Biotypes on the Metabolic Activity and Activation Status of Bovine Peripheral Blood Mononuclear Cells. Viral Immunology 11:233-244.1998.

Press Releases

Wilkerson MJ, Davis EG, Shuman W, Harkin K, Cox J, Rush B. A New Diagnostic Test to Detect Erythrocyte Associated Antibody in Horses and Dogs with Immune Mediated Hemolytic

Anemia. Kansas State Veterinary Quarterly for the Practicing Veterinarian. Vol 3, No.1 January-April, 2000.

Wilkerson MJ. Utility of flow cytometric measurement of reticulated platelets in thrombocytopenic dogs. Veterinary-Cancer-Society-Newsletter. 1999, 23: 3, 1, 4-7.

Wilkerson MJ. Flow cytometric analysis of platelet associated IgG in dogs. Kansas State Veterinary Medicine Association. April-June, 1998.

Presentations

Davis EG, Rush BR, Bain F, Clark-Price S, Wilkerson MJ: Neonatal Neutropenia in an Arabian Foal, Equine Veterinary Journal. In Press, 2002.

Franklin RP, Long MT, MacNeill A, Alleman R, Giguere S, Uhl E, López A, Wilkerson MJ. Proliferative Interstitial Pneumonia, *Pneumocystis carinii* Infection, and Immunodeficiency in an Adult Paso-Fino Horse. J. Vet. Intern. Med. 2002;16:607-611.

Wilkerson, MJ. Platelet Surface Associated IgG and Reticulated Platelets in Dogs with Immune Mediated Thrombocytopenia. 63rd. Annual Conference for Veterinarians, June 6, 2001. Kansas State University, Manhattan, KS.

Wilkerson, MJ. Platelet Surface Associated IgG in Dogs with Thrombocytopenia. Invited Speaker for Veterinary Laboratory Managers Section of the 51th Annual Meeting of American College of Veterinary Pathologists/Clinical Pathologists, Dec. 3. 2000. Florida

Wilkerson, M.J. Theory and Clinical Applications of Flow Cytometry. Annual Meeting of the Kansas Society for Clinical Laboratory Science, April 5 2000. Manhattan, KS. Spring Seminar of the Central Plains Society of the American Medical Technologists (CPSAMT), April 22, 2000.

Wilkerson, MJ., Shuman, W, Milliken, G. Lewis, DC. Flow cytometric analysis of platelet associated IgG in dogs. Kansas State University College of Veterinary Medicine June Conference, June 10, 1998 and North Central College of Veterinary Laboratory Diagnosticians Meeting June 17, 1998.

Wilkerson, MJ. Shuman, W. Flow cytometric measurement of reticulated platelets in dogs. Kansas State University College of Veterinary Medicine June Conference, North Central College of Veterinary Laboratory Diagnosticians Meeting June 17, 1998.

Davis, EG., Rush BR, Wilkerson, MJ., Application of Flow Cytometric Analysis for the Antemortem Diagnosis of Equine Lymphoma. April 14, 2000. PhiZeta Research Day at Kansas State University.

Davis EG., Cox J., Rush B, Wilkerson MJ., Direct Immunofluorescence Assay: An Innovative Diagnostic Technique for Management of Immune Mediated Disease. April 14, 2000. PhiZeta Research Day at Kansas State University.

Thomsen ME, Flaminio MJB, Rush BR, Shuman W, Wilkerson MJ. Effects of lipopolysaccharide on phagocytosis and oxidative burst of equine peripheral blood neutrophils. April 14, 2000. PhiZeta Research Day at Kansas State University.

Thomsen ME, Davis EG, Rush BR, Wilkerson MJ. Resolution of multisystemic eosinophilic epitheliotropic disease after treatment with corticosteroid. April 14, 2000. PhiZeta Research Day at Kansas State University.

T.G. Nagaraga, Professor

Narayanan, S., Nagaraja, TG., Stewart, MM., Chengappa, MM., Willard, L., Shuman, W., Wilkerson MJ. *Fusobacterium necrophorum* leukotoxin induces activation and apoptosis of bovine leukocytes. *Infection and Immunity*, 2002;70: 4609-4620.

Dept. Anatomy and Physiology

Chris Ross, Associate Professor

Kielian, T, CR Ross, S McVey, S Chapes, F Blecha. Lipopolysaccharide modulation of CD14 on porcine alveolar macrophages. *Journal of Leukocyte Biology* 57(4):581-586, 1995.

Huang, H-J, CR Ross, F Blecha. Chemoattractant properties of PR-39, a neutrophil antibacterial peptide. *J. Leukoc. Biol.* 61(5):624-629, 1997.

Shi, J, G Zhang, H Wu, C Ross, F Blecha, T Ganz. Porcine epithelial α -defensin-1 is expressed in the tongue at antimicrobial concentrations. *Infect Immun.* 67(6):3121-7, 1999.

Wu, Hua, CR Ross, F Blecha. The antimicrobial peptide PR-39 expressed by recombinant adenovirus delays cell apoptosis, inhibits viral infectivity, and suppresses viral gene expression. In preparation.

Busch, J, M Wilkerson, CR Ross. Simultaneous flow cytometric analysis of phagocytic and oxidative burst activity in hypercholesterolemic NAD(P)H-subunit p47^{phox} +/- and p47^{phox} -/- neutrophils. Studies in progress.

Frank Blecha, Professor

Blecha, F., D.N. Reddy, C.G. Chitko-McKown, D.S. McVey, M.M. Chengappa, R.D. Goodband, and J.L. Nelssen. 1995. Influence of recombinant bovine interleukin-1 and interleukin-2 in pigs vaccinated and challenged with *Streptococcus suis*. *Vet. Immunol Immunopathol.* 44:329-346.

Kielian, T.L., C.R. Ross, D.S. McVey, S.K. Chapes, and F. Blecha. 1995. lipopolysaccharide modulation of a CD14-like molecule on porcine alveolar macrophages. *J. Leukoc. Biol.* 57:581-586.

Kielian, T.L. and F. Blecha. 1995. CD14 and other recognition molecules for lipopolysaccharide: a review. *Immunopharmacol.* 29:187-205.

Dritz, S.S., J. Shi, T.L. Kielian, R.D. Goodband, J.L. Nelssen, M.D. Tokach, M.M. Chengappa, J.E. Smith, and F. Blecha. 1995. Influence of dietary beta-glucan on growth performance, nonspecific immunity, and resistance to *Streptococcus suis* infection in weanling pigs. *J. Anim. Sci.* 73:3341-3350.

Arthington, J. D., A.R. Spell, L.R. Corah, and F. Blecha. 1996. Effect of molybdenum-induced copper deficiency on in vivo and in vitro measures of neutrophil chemotaxis both prior to and following an inflammatory stressor. *J. Anim. Sci.* 74:2759-2764.

Huang, H.-J., C.R. Ross, and F. Blecha. 1997. Chemoattractant properties of PR-39, a neutrophil antibacterial peptide. *J. Leukoc. Biol.* 61:624-629.

Dominguez, J., A. Ezquerra, F. Alonso, K. McCullough, A. Summerfield, A. Bianchi, R.J. Zwart, Y.B. Kim, F. Blecha, S. Eicher, M. Murtaugh, M. Pampusch, K. Burger. 1998. Porcine myelomonocytic markers: summary of the Second International Swine CD Workshop. *Vet. Immunol. Immunopathol.* 60:329-341.

Dominguez, J., A. Ezquerra, F. Alonso, F. Bullido, K. McCullough, A. Summerfield, A. Bianchi, R.J. Zwart, Y.B. Kim, F. Blecha, S. Eicher, M.P. Murtaugh, M. Pampusch, and K. Burger. 1998. Workshop studies with monoclonal antibodies identifying a novel porcine macrophage-specific differentiation antigen, SWC9. *Vet. Immunol. Immunopathol.* 60:343-349.

Lisa Freeman

Manikkam M, Li Y, Mitchell BM, Mason DE, Freeman LC (2002). K⁺ channel antagonists influence granulosa cell proliferation, differentiation and apoptosis. *Biol Reprod* 67:88-98.