

CURRICULUM VITAE: Lawrence K. Silbart, Ph.D.

Education:

High School: Highland Park High School, Highland Park, Illinois, 1972-1976.
Undergraduate: University of Michigan, Ann Arbor, B.G.S. (Biochemistry conc.), 1976-80
Graduate: University of Michigan (Ann Arbor), Toxicology/Industrial Health
(double concentration), 1980-83, M.P.H.
University of Michigan (Ann Arbor), Toxicology, 1983-87, Ph.D.

Professional Training and Positions Held:

1981-84 Clinical Laboratory Tech., Department of Pathology, The University of Michigan Hospital.
1983-84 Staff Scientist, National Wildlife Federation-Great Lakes Natural Resource Center, Ann Arbor,
1985-87 Research Assistant, Department of Pathology, University of Michigan Medical School.
1986-87 Research Assistant, Department of Pharmacology, University of Michigan Medical School.
1988-89 Postdoctoral Research Fellow, Department of Pathology, University of Michigan.
1989-91 Research Investigator, Department of Pathology, University of Michigan.
1991-97 Assistant Professor of Animal Science, University of Connecticut, Storrs, CT.
1991-97 Joint Appointment - Assistant Professor of Molecular and Cell Biology, UCONN, Storrs, CT
1991-Present Assistant Director, Center for Environmental Health, University of Connecticut, Storrs, CT.
1997-2005 Associate Professor of Animal Science, The University of Connecticut, Storrs, CT
1997-Present Joint Appointment - Associate Professor of Molecular and Cell Biology, UCONN, Storrs, CT
1998-Present Joint Appointment – Associate Professor of Pathobiology, UCONN, Storrs, CT
1997-Present Visiting Scholar, Harvard University School of Public Health, Boston, MA
1997-Present P.I., Center for Excellence in Vaccine Research
1998-Present Co-Facility Head, Flow Cytometry and Confocal Microscopy, UCONN Storrs, CT
1999-1999 Visiting Associate Professor, Children's Hospital, Harvard University, Boston, MA
2001-Present Associate Director, Center of Excellence for Vaccine Research, UCONN
2002-2006 Adjunct Associate Professor of Veterinary Medicine, Tufts School of Veterinary Medicine
2006-Present Adjunct Professor of Veterinary Medicine, Tufts School of Veterinary Medicine
2005-Present Professor of Animal Science, University of Connecticut, Storrs, CT
2006-Present Center for Environmental Science and Engineering Advisory Committee
2006-Present Director, Hawley Armory Fitness Programs
2006-Present Director, Center for Environmental Health
2006-Present Professor and Department Head, Department of Allied Health Sciences, CANR, UCONN Storrs

Honors and Awards:

Alpha Zeta
Gamma Sigma Delta
Phi Kappa Phi (Inducted 1997)
Evans Scholarship, University of Michigan, 1976-1980
Dean's List, University of Michigan-Ann Arbor
National Honor Society, Highland Park High School
Donald M. Kinsman Award for Excellence in Undergraduate Teaching. 2002
UCANRAA Excellence in Teaching Award, 2003
Outstanding Faculty Advisor Award – Nomination (2004)
CANR Special Achievement Award (Merit) 1997, 2004

Books and Book Chapters:

Keren, D.F., Brown, J.E., Silbart, L.K., McDonald, R.A., and Wassef, J.S. (1989) Enterotoxins as Stimulators of Mucosal Immunity: Shiga Toxin and Cholera Toxin. In: Progress in Cholera Research

Keren, D.F. and Silbart, L.K. (1992) Strategies to achieve mucosal immunity. *In: Recombinant DNA Vaccines: Rationale and Strategy*. pp 147-168. Richard E. Isaacson, (Ed.) Marcel Dekker,

Silbart, L.K. and D.F. Keren (1998) Structure and Function of the Gastrointestinal Immune System. *In: Pathology of the Gastrointestinal Tract*, 2nd edition, pp 99-113, Eds: Ming S. and H. Goldman.

Silbart, L.K., (2002) Environmental Health (246-page companion study guide for ANSC 226). Erudition Books, Courier Custom Publishing, Inc., N. Chelmsford, MA. ISBN 1-58692-439-7.

Peer-Reviewed Articles:

Keren, D.F., Silbart, L.K., Lincoln, P.M. and Annesley, T.M (1986): Significance of immune responses to mucosal carcinogens: A hypothesis and a workable model system. *Pathol. Immunopathol Res.*; 5:265-277.

Silbart, L.K., Nordblom, G., Keren, D.F., Wise, D.S., Lincoln, P.M. and Townsend, L.B.: (1988) A rapid and sensitive screening method for the detection of anti-2-acetylaminofluorene immunoglobulins. *J. Immunol. Methods.*; 109:103-112.

Silbart, L.K. and D.F. Keren: (1989) Reduction of Intestinal Carcinogen Absorption by Carcinogen-Specific Secretory Immunity. *Science*; 243:1462-1464 .

Kilbane, A.J., Silbart, L.K., Manis, M., Beitins, E.Z. and Weber, W.W.: (1990) Human N-acetylation genotype determination with urinary caffeine metabolites. *J. Pharmacol. Exp. Therap.*; 47(4):470-7.

Silbart, L.K., D.F. Keren, R.A. McDonald, L. Goslinoski, B. Miller, J.D. Clements, and J. Smart (1991). Strategies for eliciting a mucosal immune response to the chemical carcinogens 2-acetylaminofluorene and aflatoxin B1. *Frontiers of Mucosal Immunology* 2:469-470.

Silbart L.K., D.F. Keren, R.A. McDonald, P.M. Lincoln, L. Goslinoski, and J.B. Smart (1992). Characterization of the Mucosal Immune Response to 2-Acetylaminofluorene-protein conjugates. *Regional Immunology* 4(4):245-254.

Silbart, L.K. (1993) Stimulating Mucosal Immunity: The Challenge of Oral Vaccination. *Clinical Immunology Newsletter* 13:113-119.

Oliver, A.R., Silbart, L.K., Keren D.F., Miller, B., McDonald, R.A. (1996) Mucosal tolerance to Aflatoxin B1 Following Mucosal Immunization with Aflatoxin B1-Carrier Protein Conjugates and Cholera Toxin. *Annals of the New York Academy of Science* 778:422-425.

McAleer, F.T., Silbart, L.K., VanKruiningen, H.J., Koudelka and A. Tobias (1996). A Simplified Procedure for Studies of Intestinal Immunity in Rabbits. *J. Immunological Methods* 194:49-58.

Silbart, L.K. McAleer, F.T., Rasmussen, M.V., Goslinoski, L., Keren, D.F., VanKruninigen, H.J. and J.M. Winchell. (1996) Selective Induction of Mucosal Immune Responses to 2-acetylaminofluorene. *Anticancer Research*, 16:651-660.

Oliver, A.R., Silbart, L.K., McDonald, R.A., Miller, B. and D.F. Keren (1997). Mucosal Unresponsiveness to Aflatoxin B1 is not broken by Cholera Toxin. *Immunology and Cell Biology* 75:47-53.

Rasmussen, M.V., Oliver, A.R. (1997) Immunoprophylactic intervention in chemical toxicity and carcinogenicity. *Veterinary and Human Toxicology*. 39:37-43.

Winchell, J.M. Van Kruniningen, H.K., and L.K. Silbart, L.K. (1997) Mucosal Immune Response to an HIV C4/V3 Peptide following Nasal or Intestinal Immunization of Rabbits, *AIDS Research and Human Retroviruses*. 13: 881-889.

Rasmussen, M.V., and Silbart, L.K. (1998) Peroral Administration of Specific Antibody Enhances Carcinogen

Excretion. *J. Immunotherapy* 21:418-426.

Oliver, A.R., Silbart, L.K., (1998) Local and systemic tolerance to orally administered dinitrochlorobenzene are not broken by CT. *International Archives of Allergy and Immunology*. 116:318-324.

Winchell, J.W., Routray, S., Betts, P.W., Van Kruiningen, H.J., Silbart, L.K. (1998) Mucosal and Systemic Antibody Responses to an HIV-1 C4/V3 Construct Following DNA Immunization of Rabbit Peyer's Patches. *J. Infec. Dis.* 178:850-3.

Zinckgraf, J.W., Winchell, J.M., and Silbart, L.K. (1999) Fecal and vaginal immune response to a mucosally delivered HIV gp120-derived C4/V3 peptide *J. Repro. Immunol.* 45(2):99-112

Rasmussen, M.V., Barker T.T. and Silbart, L.K. (2001) High Affinity binding site-mediated prevention of chemical absorption across the gastrointestinal tract. *Toxicology Letters* 125:51-59

Lynch, M.P., Faustman, C., Silbart, L.K., Rood, D. and Furr, H.C. (2001). Detection of lipid-derived aldehydes and aldehyde:protein adducts in vitro and in beef. *J. Food Sci.* 66:1093-1099.

Papazisi, L., Silbart, L.K., Frasca Jr., S., Rood, D., Liao, X., Gladd, M. Javed, M.A. and S. J. Geary (2002) A Modified Live *Mycoplasma gallisepticum* Vaccine to Protect Chickens From Respiratory Disease. *Vaccine* 20:3709-19.

Wilkinson, J., Rood, D., Minor, D., Guillard, K., Darre, M. and Silbart, L.K. (2003) Immune Response to a Mucosally Administered Aflatoxin B1 Vaccine. *Poultry Science* 82:1565-1572.

Zinckgraf, J.W. and L.K. Silbart (2003) Modulating gene expression using DNA vaccines with different 3'-UTRs influences antibody titer, seroconversion and cytokine profiles. *Vaccine* 21:1640-1649.

Fischer, D, Rood, D., Barette, R., Zuwallack, A., Kramer, E., Brown, F., and L.K. Silbart. (2003) Intranasal immunization of guinea pigs with an immunodominant FMDV peptide conjugate induces mucosal and humoral antibodies and protection upon challenge. *J. Virology* 77:7486-7491.

Javed M.A., Frasca, S. Jr., Rood, D., Cecchini K., Gladd, M., Geary, S.J., Silbart, L.K. (2005) Correlates of Immune Protection in Chickens Vaccinated with *Mycoplasma gallisepticum* Strain GT5 following Challenged with Pathogenic *M. gallisepticum* Strain R_{low} *Infection and Immunity* 73:5410-5419.

Silbart, L.K. (2006) Incorporating Problem-Based Learning Exercises into an Environmental Health Curriculum. Feature Article: *J. Environ. Health* 68(9):43-47.

C. Srinivasan, J. Lee, F. Papadimitrakopoulos, L.K. Silbart, M. H. Zhao, and D.J. Burgess. Labeling and intracellular tracking of functionally active plasmid DNA with semiconductor quantum dots. *Mol Ther.* 2006 Aug;14(2):192-201. Epub 2006 May 12.

Barrette, R.W., Urbonas, J., Silbart, L.K., (2006) Quantifying Specific Antibody Concentrations by ELISA using Slope Correction. *Clinical and Vaccine Immunology* 13(7): 802-805.

Challa S., Barrette R., Rood .D, Zinckgraf J., French R., Silbart L. (2007) Non-toxic *Pseudomonas aeruginosa* exotoxin A expressing the FMDV VP1 G-H loop for mucosal vaccination of swine against foot and mouth disease virus. *Vaccine.* 2007 Apr 30;25(17):3328-37. Epub 2007 Jan 12.

Mohammed J, Frasca S Jr, Cecchini K, Rood D, Nyaoke AC, Geary SJ, Silbart LK. (2007) Chemokine and cytokine gene expression profiles in chickens inoculated with *Mycoplasma gallisepticum* strains R_{low} or GT5. *Vaccine.* Dec 12;25(51):8611-21. Epub 2007 Oct 16.

Rezamand P, Hoagland TA, Moyes KM, Silbart LK, Andrew SM. (2007) Energy status, lipid-soluble vitamins, and acute phase proteins in periparturient Holstein and Jersey dairy cows with or without subclinical mastitis. *J Dairy Sci.* 2007 Nov;90(11):5097-107.

Yang H, Knapp J, Koirala P, Rajagopal D, Peer WA, Silbart LK, Murphy A, Gaxiola RA. (2007) Enhanced phosphorus nutrition in monocots and dicots over-expressing a phosphorus-responsive type I H⁺-pyrophosphatase. *Plant Biotechnol J*. Nov;5(6):735-45. Epub 2007 Aug 16.

Siddiqui, S., Rood, D., Morris, J., Wyand S., Silbart, L.K., (2008) Allergen deposition in the lower respiratory tract correlates with eosinophilia in the airways of BALB/c mice. In revision.

Gates A.E., S. Frasca, S. Jr, Nyaoke, A., Gorton, T.S., Silbart, L.K., Geary, S.J., (2008) Comparative Assessment of a Metabolically Attenuated *Mycoplasma gallisepticum* Mutant as a Live Vaccine for the Prevention of Avian Respiratory Mycoplasmosis. *Vaccine* (in press).

Nair, M.K.M, Venkitanarayanan, K., Silbart, L.K. and Kim, K.S., (2008) Outer membrane protein A (OmpA) of *Enterobacter sakazakii* binds fibronectin and contributes to invasion of human brain microvascular endothelial cells. (Submitted)

Barrette, R., Rood, D. and Silbart, L.K. (2008) Refocusing the immune response toward an immunodominant, hypervariable region within the FMDV VP1 G-H loop to a more highly conserved epitope via xenoepitope substitution. For submission 2/08

Canpolat, E., Pedersen-Lane, J., Lawrence, D.A., Silbart, L.K., and Lynes, M.A. (2008) Metallothionein interactions at leukocyte plasma membranes. In preparation.

Published Abstracts

Silbart, L.K., Lincoln, P.M., Annesley, T.M. and Keren, D.F.: Selective immune response to parenteral immunization with different preparations of carrier proteins conjugated to 2-acetylaminofluorene. *Fed. Proc.* 1986; 45:698.

Keren, D.F., Lincoln, P.M., Silbart, L.K. and McDonald, R.A.: Secretory IgA response in intestinal secretions to the carcinogen 2-acetylaminofluorene (2-AAF) following combined intraperitoneal and intrainestinal administration of 2-AAF-carrier protein conjugates. *Fed. Proc.* 1987; 46:746.

Kilbane, A.J., Silbart, L.K., Manis, M., Beitins E.Z., Weber, W.W. Human acetylation genotype determination by urinary caffeine metabolites. *The Pharmacologist* 1988

Silbart L.K., R.A. McDonald, P.M. Lincoln, L. Goslinoski, and D.F. Keren. Elicitation of a secretory immune response to the carcinogen 2-acetylaminofluorene (2-AAF) is enhanced by conjugation to the mucosal immunogen cholera toxin. *The FASEB Journal* 1989; 3(4):A1205

Silbart, L.K., Miller, B.F., McDonald, R.A., and Keren, D.F. Secretory IgA response in rabbit intestinal secretions to the carcinogen aflatoxin B1 (AFB1). *The FASEB Journal* 4(3) 1358A, 1990.

Keren, D.F., Silbart, L.K., Goslinoski, L., McDonald, R.A. and Smart, J. The adjuvant effect of cholera toxin, cholera toxin B subunit, and glutaraldehyde modified cholera toxin on the mucosal immune response of rabbits to 2-acetylaminofluorene-thyroglobulin conjugates. *The FASEB Journal* 4(3):1359A 1990.

Silbart, L.K., D.F. Keren, R.A. McDonald, L. Goslinoski, B. Miller, J.D. Clements, and J. Smart. Strategies for eliciting a mucosal immune response to the chemical carcinogens 2-acetylaminofluorene and aflatoxin B1. Conference Proceedings. The 6th International Congress of Mucosal Immunology, Tokyo, Japan (7/22/90).

Silbart, L.K., D.F. Keren, R.A. McDonald, L. Goslinoski, B. Miller, J.D. Clements, and J. Smart (1991). Strategies for eliciting a mucosal immune response to the chemical carcinogens 2-acetylaminofluorene and aflatoxin B1. *Frontiers of Mucosal Immunology* 2:469-470 (1991).

L.K. Silbart, D.F. Keren, R.A. McDonald, L. Goslinoski, B.E. Brownlee, C. Lash, J.B. Smart (1991). Development of non-toxic (anti-idiotypic) mucosal vaccines to block the absorption of the chemical carcinogen 2-acetylaminofluorene (AAF). *The FASEB Journal* 5:A966.

- Miller, B.F., C.M. Toth, L.K. Silbart, R.A. McDonald, D.F. Keren, and J.B. Smart. Radioimmunoassay (RIA) for the detection of secretory antibodies to the carcinogen aflatoxin B1 (AFB-B1) in rabbit and mouse intestinal secretions (1991). *The FASEB Journal* 5:A881.
- L.K. Silbart, D.F. Keren, R.A. McDonald, L. Goslinoski, B.F. Miller, C. Toth, J.D. Clements, B. Brownlee, and J.B. Smart. Enterotoxins as adjuvants and carrier proteins for the elicitation of mucosal immune responses to chemical carcinogens. 27th Joint Conference on Cholera and related diarrheal diseases, A231 (1991).
- L.K. Silbart, D.F. Keren, R.A. McDonald, B. Miller, L. Goslinoski, S. Williams, C. Toth, J.M. Winchell, and J.B. Smart. Secretory Immune Response to the Chemical Carcinogens 2-Acetylaminofluorene and Aflatoxin B1 (1992). *The FASEB Journal* 6(5):A1640
- Oliver, A.R., Silbart, L.K, Keren, D.F., Miller, B., McDonald, R.A. (1993) Mucosal Immune Response Following Immunization with Aflatoxin B1 Carrier Protein Conjugates. *J. Immunology* 150(8):34A
- Winchell, J.W., Silbart, L.K, Palker, T.J., Clements, J.D., Betts, P., Haynes, B. (1993) Production of immunogens to elicit an anti-HIV mucosal immune response. *Engineered Vaccines for Cancer and AIDS*. 9/93
- Winchell, J.W., Silbart, L.K., Palker, T.J., Clements, J.D., Betts, P., Haynes, B. (1994) Production of immunogens to elicit an anti-HIV Mucosal immune response. *The FASEB Journal* 8(5):A961
- Oliver, A.R., Silbart, L.K, Keren, D.F., Miller, B., McDonald, R.A. (1994). Mucosal Immune Response Following Mucosal Unresponsiveness to Aflatoxin B1 Following Immunization with AFB1-Carrier Protein Conjugates. *The FASEB Journal* 8(4):A515.
- Rasmussen, M. and L.K. Silbart Specific IgA Affects Lipophilic Carcinogen Bioavailability and Partitioning (1995) *Clinical Immunology and Immunopathology*, 76 (1):S96.
- Winchell, J.W., Betts, P.W. and L.K. Silbart (1996) Mucosal immune responses to an HIV-1 envelope derived synthetic peptide in rabbits. Conference on Advances in AIDS Vaccine Development. AIDSLINE Abstract #35.
- Winchell, J.W. and L.K. Silbart (1996) Mucosal immune responses to an HIV-1 envelope derived synthetic peptide in rabbits. American Association of Immunologists. Joint Meeting A:1191 (#1106).
- Oliver, A.R. and L.K. Silbart (1996) Mucosal Priming and Tolerance Following Peroral Administration of DNCB to Mice. XXII New England Immunology Conference Proceedings. A34.
- Winchell, J.M., Routray, S., Betts, P.W., Van Kruiningen, H.J., and L.K. Silbart (1997) Gene gun Vaccination of Rabbit Peyer's Patches with an HIV C4/V3 Construct Induces Systemic and Mucosal Immunity (1997). 1st Gordon Research Conference on Genetic Vaccines, Plymouth, N.H.
- Winchell, J.M., Routray, S., Betts, P.W., Van Kruiningen, H.J., and L.K. Silbart (1997) Gene gun Vaccination of Rabbit Peyer's Patches with an HIV C4/V3 Construct Induces Systemic and Mucosal Antibody Responses. HIV-1 Infection, Mucosal Immunity and Pathogenesis. NIH symposium, Bethesda, Md.
- Zinckgraf, J.W., Winchell, J.M. and L.K. Silbart (1998) Nasal Immunization Followed by Vaginal Boosting Induces both Vaginal and Systemic Immune Responses to an HIV Synthetic Peptide. *Experimental Biology* 1998, Abst. #590, San Francisco, CA
- Zinckgraf, J.W., Winchell, J.M., and L.K. Silbart (1998). Immune Responses to an HIV Peptide/DNA Construct. XXIV New England Immunology Conference, 10/15-10/16/98. Woods Hole, MA
- Rasmussen, M.V. and Silbart, L.K. (2000) Modeling the abrogation of intestinal carcinogen absorption using high affinity binding sites
- Wilkinson, J., Rood, Minor, D. Gillard K., Darre, M. and Silbart, L.K. (2000) Characterization of the mucosal

- immune response in Broiler to an aflatoxin B1-carrier mucosal vaccine. *Poultry Science* 78 (Supplement 1) p39. Poultry Science Annual Meeting, Springdale, Arkansas, August 8-11, 1999.
- Zinckgraf, J.Z. and Silbart, L.K. (2000) Development of a Mucosally Delivered Inducible HIV-1 DNA Vaccine. *The FASEB Journal* 14 (6): A1205. American Association of Immunologist's Annual Meeting, Seattle WA, May 12th-16th, 2000.
- Lynch, M.P., Phillips, A.L., Silbart, L.K., Rood, D. Waeg G. and Faustman, C. (2000) Detection of 4-hydroxynonenal oxymyoglobin adducts in vitro. 2000 Annual IFT Meeting, Dallas TX.
- Kumal M., Silbart, L.K., Rood, D. Papazisi, L., Geary, S.J. (2000) Utility of High Passage R Strain of *M. gallisepticum* both as Modified Live Vaccine and as a Vector for Heterologous Antigens. American Society of Microbiology 100th annual meeting, Los Angeles, CA 5/19-5/14/00.
- Kumal M., Silbart, L.K., Rood, D. Papazisi, L., Geary, S.J. (2000) *Mycoplasma gallisepticum* strain R-High as a vector for the Avian Influenza Virus Hemagglutinin (H5HA) and as a modified live vaccine. Thirteenth International Congress of the International Organization for Mycoplasmaology, Fukuoka, Japan.
- Kumal M., Papazisi, L., Silbart, L.K., Rood, D. Frasca, S., Geary, S.J. (2000). Development of attenuated *Mycoplasma gallisepticum* as a modified live vaccine and vector for heterologous antigens in poultry. IVVAC meeting, Oxford, U.K. July 23-28.
- L. Papazisi, L. Silbart, D. Rood, S. Frasca and S.J. Geary (2001). "Development of a protective live attenuated *Mycoplasma gallisepticum* vaccine for poultry. Conference of Research Workers in Animal Diseases, St Louis, MO.
- Zinckgraf, J.W. and L.K. Silbart (2001) Development of an Inducible DNA Vaccine. *Experimental Biology* 2001, Abst. *FASEB Journal* 15(4):652 #519.3, Orlando, FL
- Zinckgraf, J.W., Wohlfert, E.A., Rood, D. and L.K. Silbart (2002) Modulating gene expression using DNA vaccines with different 3'-UTRs influences antibody titer, seroconversion rate and cytokine profiles. *The FASEB Journal* 16: A312. New Orleans, LA 4/20 - 4/24/02.
- Fischer, D, Rood, D., Barette, R., Zuwallack, A., Kramer, E., Brown, F., and L.K. Silbart. (2002). Intranasal immunization of guinea pigs with FMDV A12 VP1 peptide-KLH conjugates induces serum neutralizing antibodies and protection upon challenge. *Molecular Approaches to Vaccine Design*. Cold Spring Harbor Conference, Nov 29-Dec 2, 2001.
- Papazisi, L., Silbart, L.K., Frasca Jr. , S., Rood, D., Liao, X., Gladd, M. Javed, M.A. and S. J. Geary (2002) A Modified Live *Mycoplasma gallisepticum* Vaccine to Protect Chickens From Respiratory Disease. Conference Proceedings: International Organization of Mycoplasmaology, 14th Annual Congress, 07/10/02, Vienna, Austria.
- A.L. Phillips, S. Lee, L. Silbart and C. Faustman (2002). *In-vitro* oxidation of bovine oxymyoglobin as affected by 4-hydroxy-nonenal. *Reciprocal Meat Conference J. Animal Science* 79:378 (Abstract #1565).
- Papazisi, L., Frasca Jr. S., Gladd, M., Liao, X., Rood, D., Silbart, L. and S. J. Geary, 5/02. "CrmA is Essential for *Mycoplasma gallisepticum* Cytadherence and Virulence, Conference Proceedings: American Society for Microbiology National Meeting, Salt Lake City, UT.
- Canpolat, E., Pedersen-Lane, J., Lawrence, D.A., Silbart, L.K., and Lynes, M.A. 2002 "Metallothionein interactions at leukocyte plasma membranes" Conference Proceedings: Northeast Society of Toxicology, Groton, CT
- Canpolat, E., Pedersen-Lane, J., Lawrence, D.A., Silbart, L.K., and Lynes, M.A. 2003 "Metallothionein interactions at leukocyte plasma membranes" Conference Proceedings: Society of Toxicology Annual meeting, Salt Lake City, UT

Canpolat-Turgut, E., Silbart, L.K., Lynes, M.A. "The effect of an anti-metallothionein monoclonal antibody (UC1MT) on anti-FMDV response" Conference Proceedings: Northeast Society of Toxicology Cambridge, MA 11/14/03

Correlates of Immune Protection in GT5 Vaccinated Chickens Challenged with Pathogenic *Mycoplasma gallisepticum* R_{low}. M. Javed, M. Gladd, K. Cecchini, S. Frasca Jr., D. Rood, P. Hudson, S.J. Geary, L.K. Silbart. University of Connecticut, Center of Excellence for Vaccine Research, Storrs, CT Abstract and oral presentation (M. Javed), CRWAD meeting, November 12-14, 2004, Chicago IL.

Correlates of Immune Protection in GT5 Vaccinated Chickens Challenged with Pathogenic *Mycoplasma gallisepticum* R_{low}. M. Javed*, M. Gladd, K. Cecchini, S. Frasca Jr., D. Rood, P. Hudson, S.J. Geary, L.K. Silbart. 77th Northeastern Conference on Avian Diseases, Cornell University, Ithaca, NY 6/15 – 6/17/05 [Note: M. Javed won the "best oral present by a student" for his presentation]

Non-toxic *Pseudomonas aeruginosa* exotoxin A expressing the FMDV GH-loop: A novel mucosal vaccine against Foot and Mouth Disease. S. Challa, R. Barrette, D. Rood, J.W. Zinckgraf, R.A. French and L.K. Silbart. Accepted. American Association of Immunologists Annual Meeting, Boston, MA 5/06.

Anesthesia affects allergen deposition and eosinophilia in the airways of BALB/c mice. S. Shafiuddin and L.K. Silbart. Accepted. American Association of Immunologists Annual Meeting, Boston, MA 5/06.

Mycoplasma gallisepticum R_{low} Infection in Chickens Alters Chemokine and Cytokine Gene Expression Profiles During Acute Stages of Disease. M.A. Javed*, S. Frasca Jr., A.C. Nyaoke, D. Rood, K. Cecchini, S.J. Geary and L.K. Silbart. For presentation at the IOM meeting in Cambridge, U.K., 7/2006 [Note: M. Javed received a travel award from the IOM to attend this meeting]

Non-peer reviewed articles:

Silbart, L.K. (1997) Mucosal Immunity and Protection from Chemical Carcinogens. Center for Environmental Health Newsletter, May 1997.

Academic Advising:

High School Students (laboratory training/exercises)

Laura Kubica, Glastonbury High School
Glen Billings, Glastonbury High School
Beth Grossman, Glastonbury High School
Jasper Connor, NIH NCRR High School Student Apprentice Program
Larissa Consing, NIH NCRR High School Student Apprentice Program
Brian Burgess, Morgan High School, Clinton, CT
Philip Licitra, Glastonbury High School
Lauren Dugdale, Glastonbury High School
Laura Mothersele, Glastonbury High School
Rebecca Sawyer, Glastonbury High School

Undergraduate Academic Advisees [Environmental Health or Individualized Majors]

Mary LeMieux (individualized major)
Irene Checchin
Poly Ingraham
Rob Hartley
Elizabeth Peterson (University Scholar)
Brook Reynolds

Tom Barrett
Jamie D'Agostino
Cara Endyke
Robin Fiorente
Rachel Grabowski
Larissa Graham
Alicia Heffernan
Julianna Kristoff
Julie Hansen
Laura Thibodeau
David Thomas
Madalina Totolici
Joe Zavalishin
Tonia Vassilowitch
Sheila Kitchen
Sheryl Kitchen
Nina Carte
Ashley Kay
Diana Orlando
Alaina Risotti
Louis Tuohy
Christy Quagliaroli
Melissa Krah
Varicia Vanterpool
Amanda Duran, Pre-Vet
Rich Kochan
Aaron Niderno
Nathalia Xavier
Curt Ciarleglio, Pre-Vet
Zacharie Goodreau, Pre-Vet
Bryan Winkler
Jessica McShane
Kyle Begey
Christopher Doran
Kristen Legutki
Mary Nolan
William Tucci
Thomas Vohoska
Alexandra Isenberg
Katelyn Hope

Undergraduate Independent Study Students Performing Laboratory Investigations/Honors Thesis
(an * denotes undergraduate students who were co-authors on peer-reviewed scientific papers)

Soumya Routray*
James Samuel (Honors Thesis)
Cara Endyke
Frank McAleer* (First Authored Publication)
Jan Koudelka*
Allison Tobias*
Adriene Zuwallack*
Devon Minor*
Beth Wolfert*
Jessica Urbonas * (second author)
Daniel Zapata
Gretchen S Scheibel
Konstantina Gialelis
Kristen Digiulio

Lindsey Segundo
Naomi Avery (University Scholar)
Katarzyna Kaczmarek

Master's Degree Advising:

John Wilkinson, M.S., Animal Science - Primary Advisor (Defended 2000)
Richard Johnson, M.S., Chemistry, Associate Advisor (Completed, 2002)
Courtney Snyder, M.S., (Plan B) Animal Science, Primary Advisor (Completed, 2001)
Daniela Fischer, M.S., Molecular and Cell Biology, Primary Advisor (Completed, 2002)
Omar Delgado, M.S., (Plan B) Molecular and Cell Biology, Primary Advisor (Completed, 2002)
Letisha Wubbel, M.S. (Plan B), Animal Science (Completed 2001)
Casey Moyes, M.S., Animal Science, Associate Advisor (Completed, 2004)
Tolga Barker, M.S., Primary Advisor, Animal Science (Completed, 2003)
Eric Ling, M.S., Associate Advisor, Pathobiology
Chandrika Rajan, M.S., Associate Advisor, Pharmacy (Completed, 2005)
Evan Barry, M.S., Animal Science, Primary Advisor (Plan B)
Sheila Tucker, M.S., Animal Science, Primary Advisor (Plan B, Completed, 2004)
Nikoletta Kallinteris, M.S., Molecular and Cell Biology, Associate Advisor (Completed, 2001)
Ahmet Okur, M.S., Associate Advisor, Pathobiology, (Completed 2001)
Derek Stevens, MCB, Primary Advisor (Completed 2003)
Erica Poulin, PVS, Associate Advisor
Kara Beaudet, Animal Science Plan B M.S., Primary advisor
Amy Gates, PVS, Associate Advisor (Plan A)
Robert Proietto, M.S., ANSC, Associate advisor
Bridget Sullivan, M.S., Allied Health Sciences, Associate Advisor (Plan A)
Dana Elm, M.S. in Allied Health Sciences, Associate Advisor (Plan B)
Katy Peasley, M.S. in Allied Health Sciences, Associate Advisor (Plan B)
Geraldine Napoleone, Allied Health Sciences, Advisor (Plan B)
Maryann Fusco-Rollands, Animal Science, Advisor (Plan B)
Chun-Nian Chen, Molecular and Cell Biology, Associate Advisor (Plan B)

Ph.D. Degree Advising:

Jonas Winchell, Ph.D., Molecular and Cell Biology - Primary Adviser (Completed 1997)
Alfred Oliver, Ph.D., Animal Science - Primary Advisor (Completed, 1997)
Max Rasmussen, Ph.D., Animal Science - Primary Advisor (Completed 1999)
Michele Barber, Ph.D., Pathobiology - Associate Advisor (Completed 1998)
Lisa Borghesi, Ph.D., Molecular Cell Biology - Associate Advisor (Completed, 1995)
Jeehee Youn, Ph.D., Molecular and Cell Biology - Associate Advisor (Completed, 1996)
Warren Brooks, Ph.D., Molecular and Cell Biology - Associate Advisor (Completed, 2002)
John Zinckgraf, Ph.D., Molecular and Cell Biology – Advisor (Completed, 2002)
Michelle Elliott, Ph.D., Pathobiology, Associate Advisor (Completed, 2005)
Michael Lynch, Ph.D., Animal Science, Associate Advisor (Completed 1999)
Emel Canpolat, Ph.D. Molecular and Cell Biology, Associate Advisor (Completed, 2004)
Leka Papazisi, Ph.D. Pathobiology, Associate Advisor (Completed, 2002)
Michael Goedken, Ph.D., Pathobiology, Associate Advisor (Completed, 2004)
Milton Levin, Ph.D., Pathobiology, Associate Advisor (Completed, 2004)
Jiali Tang, Ph.D., Animal Science, Associate Advisor (Completed, 2005)
Roger Barrette, Ph.D., Primary Advisor, Animal Science (Completed, 2007)
Mohammed Javed, Ph.D., Primary Advisor, Animal Science (Completed, 2006)
Giovanni Rompatò, Ph.D. Associate Advisor, Pathobiology (Completed, 2005)
Rupa Challa, Ph.D., Primary Advisor, Animal Science
Shafiuddin Shafiuddin, Ph.D., Primary Advisor, Animal Science
Meghan May, Ph.D. Pathobiology, Associate Advisor (Completed, 2006)
Haibing Yang, Ph.D. Plant Science, Associate Advisor (Completed, 2006)
Manoj Kumar, M. Ph.D., Animal Science, Associate Advisor (Completed, 2006)
Suman Surendranath, Ph.D., Animal Science, Associate Advisor (Completed, 2006)

Charudharshini Srinivasan, Ph.D., Associate Advisor, Pharmacy
Bo, Dai, Ph.D., Associate Advisor, Animal Science (CRB)
Akinyi Nyaoke, Ph.D., Associate Advisor (PVS)
Chris Overand, Ph.D., Associate Advisor (PVS)
Steve Szczepanek, Ph.D., Associate Advisor (PVS)
Wei Ma, Ph.D., Plant Science, Associate Advisor

Post-Doctoral Fellows Supervised:

Andrew Finley, Ph.D.
C.K. Pai, Ph.D.
Max Rasmussen, Ph.D.
John Zinckgraf, Ph.D.

Professional Development:

High Performance Liquid Chromatography (HPLC) Training Course, March 11th – 13th, 1991, Beckman Instruments, Ann Arbor, MI

Audited a laboratory course in molecular biology techniques taught in MCB, Spring 1992.

Sabbatical Leave (Invited Visiting Associate Professor) 1/4/99 to 8/20/99, Department of Pediatrics, Harvard Medical School and G.I. Cell Biology Laboratory, Children's Hospital, Boston, MA (Sponsor: Dr. Marian Neutra).

Visiting Scholar, Harvard University School of Public Health. Attended approximately five seminars and roundtables per year, plus a three-day retreat for each of the past six years. These seminars focus on environmental and occupational health issues, epidemiology, toxicology and risk assessment. The program is coordinated by Ms. Ann Backus.

NIH Grant Writing Regional Seminar, Naragansett Bay Campus, URI 8/13/02 – all day seminar entitled "Grant Writing for Success: insights and Helpful Hints on Application Preparation" (Dr. A.M. Coelho, presenter).

Flow Cytometry Training, Becton-Dickinson, FACSCalibur Sort Key Operator (4-day training course). June 22nd to 26th, 1998, Mansfield MA.

Biacore (Surface Plasmon Resonance) Training Course (two-day) "BIA Basics." San Diego, CT 7/01

Biacore (Surface Plasmon Resonance) Training Course (one-day) "Kinetics and Affinity," Chicago, IL 11/01

Recently Appointed Administrators Workshop. University of Nebraska, 3-day workshop, Lincoln, Nebraska. June 4-7, 2007.

Public Service/Outreach Activities:

CEH Conference - "Incorporating Molecular Mechanisms into Estimates of Cancer Risk." April 23 & 24, 1992 (UConn Bishop Center)

CEH Conference - "Pollution Prevention: From Policy to Pavement," April 8 & 9, 1993 (UConn Bishop Center)

CEH Conference - "Genetic Predisposition to Cancer." May 6, 1994 (UConn Bishop Center)

CEH Conference - "Breast Cancer." April 6, 1995 (UConn Bishop Center)

CEH Conference – “Health Risks of Farming”, all day conference 12/12/96 Bishop Center, Storrs, CT

CEH Conference - “Fungal Toxins: Challenges to Agriculture and Food Safety. 12/15/98

Listeria: Issues and Strategies, September 21st and 22nd, 2000. Bishop Center, UCONN Served as co-organizer with Diane Hirsch and the Food Safety Team

Particulate Air Pollution and Human Health. UCONN Dodd Center, 12/10/00

Organized and Chaired Conference entitled: "Cooperative Decision Making in Managing Connecticut's Enduring Superfund Sites" Dodd Center, 1/26/01

Sponsored Photo exhibit by Mr. Earl Dotter - "A Quiet Sickness" 1/25 - 3/16/01. Exhibit was the subject of many newspaper articles, including a feature article in the Hartford Courant.

Organized and Hosted a Visiting Scholars (Harvard University) Mini-conference entitled “The Warp and Woof of Complex Issues: Using Logic and Cognitive Science to Address Complex Environmental Issues. UCONN Dodd Research Center, March 16, 2001.

CEH Conference: Genetically Modified Foods: Impacts on Human Health and the Environment: Served as Conference co-organizer (with Dr. Chris Simon, EEB) – 2 day conference with 13 guest speakers 5/8-5/9/2003.

CEH Conference: Mad Cow and Related TSE Diseases: Science, Risk and Public Policy. Conference organizer (with a four person organizing committee). 10/6/2005. Dodd Center, Storrs, CT

Worked with a variety of students to develop nearly 400 web pages that provide the public with information on environmental health issues.

Field frequent telephone calls regarding Environmental Health Issues from the general public.

University Service:

Departmental:

Building Safety Committee (chair, 9 years)
Graduate Committee (chair, 6 years)
G. White Building Renovation Committee (2 years)
PTR committee - twice

Search Committees:

ANSC Large Animal Cloning (Dr. Jerry Yang)
ANSC Department Head – (Dr. Ian Hart)
ANSC/CRB Molecular embryologist – (Dr. Cindy Tian)
ANSC/CRB Oocyte Developmental Biologist –(Dr. Ted Rasmussen)
ANSC (Chair) Food Microbiology search, (Dr. Kumar Vankitanarayanan)
ANSC/CEH Food allergy/toxicology; first search was unsuccessful, then position cancelled
ANSC Department Head – two searches ('05/06)

College:

Dean's advisory committee on PTR (2 years)
Food Safety Team (5 years)
Agricultural Biotechnology Team (rarely meets)
Faculty Advisor, Alpha-Zeta (Agricultural Honor/Service Fraternity – 2 years)
Dean's Faculty Advisory Council – 2 years
Wildlife Team – 1 year
Distance Learning Committee – 2 years
Dean's Search Committee; 2008

Search Committees (non-ANSC)

Center of Excellence For Vaccine Research – Associate Professor in Residence (Dr. Lynn Rust)
Center of Excellence For Vaccine Research – Assistant Professor in Residence (Dr. Tim Gorton)
Pathobiology and Veterinary Science Department Head (Search unsuccessful – twice)
Department of Nutrition, Functional Foods –Dr. Steven Davis
Flow Cytometry and Confocal Microscopy Core facility; Facility Scientist – (Dr. Michele Barber)
Flow Cytometry and Confocal Microscopy Core facility; Facility Scientist – (Dr. Carol Norris)
MCB – Cell Signaling (Adam Zweifach)
MCB – Cancer Center (Su Dharmawardhane)
AHS – Molecular Genetics (Yih-Woei Fridell)
AHS – Health Promotion (Michael Copenhaver)
Center for Continuing Studies – Peter Diplock, Associate Director
Center for Continuing Studies – Occupational Health and Safety Faculty member

University

Laboratory Safety Committee (Chair, 6 years)
Environmental Science Undergraduate Program Steering Committee (8 years)
Toxicology Program Steering Committee (10 years)
Graduate Faculty Council (two, 3-year terms)
Ad Hoc Investigations Committee (ERI) – Scientific Misconduct (4 months)
Institutional Biosafety Committee (2 years); Vice Chair '05-'06
Environmental Science Steering Committee (for reformation of ERI; 1 year)
Conflict of Interest Committee (2 years; Chair 2004 - 2007)
Strategic Planning Team – Center for Public Health and Health Policy (2 years)

- Academic Program Development Task Force (2 years)
- Occ. Environmental Health Ph.D. program co-chair (2 years)

Environmental Literacy Committee – 2 years
University Senate (beginning Fall, '06)

Grant Proposals and Manuscripts Reviewed as Ad Hoc or Panel Member:

Federal Grant Review Panels:

National Institutes of Health Special Emphasis Panel – RFA-03-017 “Cooperative Research for the Development of Vaccines, Adjuvants Therapeutics and Diagnostics for Biodefense (VATID) and SARS” 2/17 – 2/19/04

USDA Animal Health (Panel B) – National Research Initiative Competitive Grants Program Panellist 5/3 - 5/7/04

USDA Animal Health (Panel B) – National Research Initiative Competitive Grants Program Panellist 5/3 - 5/7/05

USDA Animal Health (Panel B) - National Research Initiative Competitive Grants Program Panellist – [Invitation accepted – panel will convene on 5/8/06]

[Note: Declined two invitations to serve on NIH study panels (due to conflict of interest (1) and insufficient familiarity with subject area (1)).

Ad Hoc Federal Grants Reviewed:

Department of Veterans Affairs, Office of External Reviews

U.S. Civilian Research and Development Foundation (CRDF)

USDA Animal Health

University Grant Review Panels:

Chair of UCRF Research Advisory Council's Life Sciences Review Panel, Fall 2000 – June 2001 (two cycles – 29 proposals).

Panelist for the UCRF Research Advisory Council's Life Science Review Panel:
Written reviews prepared for 18 proposals (1996/7).

American Cancer Society – Institutional Research Grant Program (UCHC – two three-year cycles – many proposals).

Center for Environmental Health Small Grants program – 2 years

Many prospectus/dissertation proposals and general examination committees for Pharmacy, Pathobiology, MCB and Animal Science Students.

Ad Hoc Reviewer of Manuscripts for the following Journals:

J. Interferon and Cytokine Research
Vaccine
J. Immunological Methods
J. Animal Science
J. Food Science
Clinical and Diagnostic Laboratory Immunology
Clinical and Vaccine Immunology
J. Pharmacology and Experimental Therapeutics
Avian Pathology

Editorial Board Appointments:

Clinical and Vaccine Immunology (ASM Journal). Appointed 1/1/06 – 12/31/08
[Now published as Clinical and Vaccine Immunology].

Grants and Fellowships Held (1991-Present)

Federal Extramural Grants Funded; 1991- Present

USPHS (NIH) National Cancer Institute: "Mucosal Immune Response to Aflatoxin B1" 9/6/91 – 4/30/94
\$276,000.

USPHS (ATSDR) "Environmental Health Conferences" 9/92-9/93 \$4,976.

US-PHS (NIH; NIAID, NCVDG) "Peptide Immunogens for mucosal and Systemic HIV Vaccines. P.I. Barton Haynes (Duke University). UCONN Sub-project (LKS) \$351,360. 12/94 to 11/97

Bioadhesive microspheres for oral DNA Vaccination. Spherics Inc. (Subcontract on NIH SBIR grant, 9/15/00 - 9/15/01) \$ 22,695 Direct Costs.

USDA Equipment Grant: Expression Studies by Real-Time PCR – Request for Equipment P.I.: Dr. Susanne Von Bodman. Silbart – one of five co-P.I.'s. Total Direct Costs Requested: \$20,000 (shared instrument)

Development of Mucosal Peptide Vaccines for FMDV. USDA-NRI \$200,000 (2003-2005).

Development of Mucosal Peptide and DNA Vaccine for FMDV. USDA Special Grant, Direct cost \$381,203 (1999-2004)

Mycoplasma gallisepticum Vaccine. USDA Special Grant, Direct cost: \$363,909 (1999-2004)

Miscellaneous Extramural Funding:

Connecticut Innovations Inc. (CII) "Development of a Mycoplasma gallisepticum strain as a live-attenuated vaccine and vector for the protection of chickens and turkeys from respiratory disease. Co-P.I of project with Drs. Geary, Markus and Sekellick). Direct costs: \$78,668 (LKS); overall grant \$300,000.

Smokeless Tobacco Research Council: "Continued Development of Mucosal Vaccines for Carcinogens." 7/91 to 6/93 \$171,882

Protein Sciences Inc. "Vaccines trials for avian influenza virus." 6/1/97 – 5/31/98 (Co-P.I. with Michael Darre – 50%) \$23,143

Harvard University Stipend - \$1,000 award for computer purchase in support of developing web-based learning platforms. 7/2000.

Total Extramural Funding (1991-present): \$1,871,000.

Competitive Intramural Funding (UCONN):

UCRF Faculty Large Grant: Elicitation of a Mucosal Immune Response to HIV Synthetic Peptides" 1/93 – 12/93 \$10,024.

UCRF Faculty Large Grant: The Influence of anti-carcinogen antibodies on mucosal absorption of carcinogens. 1/94 to 12/94 \$13,889.

UCRF Faculty Large Grant: Reduction of oral mucosal DNA damage by carcinogen-specific salivary immunity. \$6,657

UCRF Faculty Large Grant Developing DNA Vaccines to Block Latex Allergy, Competition, \$14,159 (funded 1/04 to 12/04)

UCRF Faculty Large Grant – Genetic Vaccination to Induce Mucosal Immunity to HIV-1. 1/1/98 – 12/31/99 \$15,000

UCRF Major Equipment Grant – FACSCalibur Fluorescence Activated Cell Sorting Core Facility (Co-P.I. with Michael Lynes, MCB) \$72,665

Hatch Projects:

Mucosal Immunosuppression following immunization with AFB1-Protein conjugates. 10/92 to 9/95 \$41,510

Mucosal Immune exclusion of Dietary Aflatoxin B1 in Broiler Chickens via active and passive immunity. 10/95 to 9/98 \$49,884.

Development of a mucosal Mycoplasma gallisepticum vaccine for poultry. 10/98 to 9/01 \$26,946.

Mycoplamsa Mucosal Vaccine, 10/01 to 9/04. \$33,342.

News Media

College of Ag. & Nat. Res. Journal 2(2):5-6 1995 "College scientist conducts research on AIDS, breast cancer, farm odor pollution and toxins in food."

"Studying the impact of environment on health" Lead Story. Hometown. April 7, 1994.

Longevity Magazine: "The war against cancer..." January, 1993

UCONN Advance – Feb 9 1998 "Faculty Experts offer insights on danger of biological warfare in Middle East.

Radio interviews: WILI and WHUS – 97/98

Radio interviews: WILI and WHUS – 6/12/07

UCONN Advance; November 19th, 2001 "Bioterrorism Threat Real, But Not Cause for Panic."

Professional Organizations or Societies:

The American Association for the Advancement of Science

The Society for Mucosal Immunology

The American Association of Immunologists

The American Society of Investigative Pathology

The American Chemical Society

The American Society of Microbiology

The International Association of Mycoplasma

Society for Mucosal Immunology

New England Society of Toxicology