CURRICULUM VITAE

NAME: Thomas L. Freeman, Ph.D.

DATE: February 25, 2024

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EDUCATION:

Doctor of Philosophy in Biology. Dissertation: Nucleotide sequence and regulation of the *exuT* complementing DNA of *Erwinia chrysanthemi*. Texas Tech University, Lubbock, TX (January, 1994 to December, 1996).

Master of Science in Microbiology. Thesis: Cloning and characterization of the galacturonic acid uptake system in *Erwinia chrysanthemi* EC16. Texas Tech University, Lubbock, TX (January, 1991 to December, 1993).

Bachelor of Science in Wildlife Management. Texas Tech University-Lubbock, TX (September, 1987 to December, 1990).

POST-DOCTORAL TRAINING:

5/1996-5/1998, Post-doctoral Research Associate, <u>Texas Tech University Health</u> <u>Sciences Center</u>, Lubbock, TX, Mark E. Mailliard, M.D. preceptor. Key topics: amino acid transport, system A, ATA2-mediated transport, liver regeneration, nutrition related to liver and amino acids.

6/1998-6/1999, Post-doctoral Fellow, NRSA training grant, <u>University of Cincinnati</u>, <u>College of Medicine</u>, <u>Department of Molecular and Cellular Physiology</u>, Cincinnati, OH. David E. Millhorn, Ph.D. preceptor. Key topics: hypoxia, PC12 cells, cell signaling, HIF1α, EPAS1, June/Fos/AP1, p38gamma, oxygen signaling.

7/1999-6/2000, Post-doctoral Research Associate, <u>University of Nebraska Medical</u> <u>Center</u>, Omaha, NE. Key topics: liver regeneration, amino acid uptake, collagen synthesis, expression of System A transport protein, nutrient regulation of cell proliferation.

ACADEMIC APPOINTMENTS (24 years academic employment with \sim 20 years as faculty):

August 2022-May 2023. <u>Professor</u>. Eastern New Mexico University, Department of Mathematics and Science, Ruidoso, NM.

August, 2015. Tenure. University of Nebraska at Kearney, Department of Biology,

Kearney, NE.

August, 2014- May 2022. <u>Associate Professor</u>. University of Nebraska at Kearney, Department of Biology, Kearney, NE.

January, 2010-July 2014. <u>Assistant Professor</u>. University of Nebraska at Kearney, Department of Biology, Kearney, NE.

January 2010-May 2022. <u>Graduate Faculty</u>. University of Nebraska System, Graduate College, University of Nebraska at Kearney campus, Kearney, NE.

August, 2007-December, 2010. <u>Assistant Professor</u>. College of St. Mary, Department of Biology, Omaha, NE.

January, 2007-December, 2010. <u>Adjunct Biology Instructor</u>, Iowa Western Community College, Department of Biology, Council Bluffs, IA.

January, 2007-May, 2007. <u>Adjunct Faculty</u>. Methodist District College, Josie Harper Campus, Omaha, NE.

August, 2006-December, 2009. <u>Lecturer in Chemistry</u>. University of Nebraska at Omaha, Department of Chemistry, Collage of Arts and Sciences, Omaha, NE.

August, 2006-February, 2007. <u>Instructor</u>. University of Nebraska Medical Center, Department of Surgery (Research), College of Medicine, Omaha, NE.

July, 2004-July, 2006. <u>Assistant Professor</u>. University of Nebraska Medical Center, Collage of Medicine, Department of Internal Medicine, Omaha, NE.

July, 2000-June, 2004. <u>Instructor</u>. University of Nebraska Medical Center, Collage of Medicine, Department of Internal Medicine, Omaha, NE.

July, 1999-June, 2000. <u>Research Associate</u>. University of Nebraska Medical Center, College of Medicine, Department of Internal Medicine, Omaha, NE.

June, 1998-June, 1999. <u>NRSA post-doctoral fellow</u>. University of Cincinnati, Collage of Medicine, Department of Molecular and Cellular Physiology, Cincinnati, OH.

June, 1996-June, 1998. <u>Post Doctoral Research Associate</u>. Texas Tech University Health Sciences Center, Collage of Medicine, Department of Internal Medicine, Lubbock, TX.

August, 1995-May, 1996. <u>Teaching Assistant</u>. Texas Tech University, Collage of Arts and Sciences, Department of Biological Sciences, Lubbock, TX.

June, 1992-August, 1995. <u>Research Assistant</u>. Texas Tech University, College of Arts and Sciences, Department of Biological Sciences, Lubbock, TX.

FORMAL ACADEMIC LEADERSHIP / SUPERVISION APPOINTMENTS:

August 2022-January 2023. Chairperson. Department of Mathematics and Science,

Eastern New Mexico University at Ruidoso, Ruidoso, NM.

February 2015-February 2017. <u>Secretary</u>. Executive Board for the Nebraska Chapter of the Wildlife Society.

January 2014-December 2016. <u>Chair</u>, Subcommittee for Graduate Curriculum, University of Nebraska at Kearney, Kearney, NE.

October 2012-October 2013. <u>Chair</u>, eCampus Committee, University of Nebraska at Kearney, Kearney, NE.

October 2012-October 2013. <u>Secretary</u>, Academic Information and Technology Committee, University of Nebraska at Kearney, NE.

June 2004-July 2005. <u>Interim Director</u>. Peptide Synthesis Core Laboratory, Veterans Administration Medical Center, Omaha, Nebraska. Budget, process and supervisory duties.

April 2003-July 2006. <u>Proteomics Equipment Supervisor</u> (Ciphergen MALDI-TOF mass spectroscopy), Veterans Administration Medical Center, Omaha, Nebraska. Budget, process, training and supervision duties.

June 2003-July 2006. <u>Member and Assistant Director</u> of the Experimental Immunology Laboratory, Veteran Administration Medical Center, Omaha, Nebraska. Budget, grant writing, training and supervision of 5-7 technical staff.

July 1999-July 2006. <u>Investigator / Member</u> of the Liver Study Unit and Alcohol Center, Veterans Administration Medical Center, Omaha, Nebraska.

NON-ACADEMIC EMPLOYMENT (~40 years SSA eligible employment):

March 2023-September 2023. Biology Field Technician, WEST-Inc, Laramie, WY. Providing field expertise for pre- and post- construction activities for clients in the wind energy industry.

May 1991-June 1992. Student Assistant, Student Services, Texas Tech University, Lubbock, TX. General maintenance duties in the Student Union including HVAC, light construction, electrical wiring, plumbing, painting, training new staff, etc.

August 1990-April 1991. Office Assistant, Housing and Dining, Texas Tech University, Lubbock, TX. General office duties, working with public / students and training new staff.

June 1990-August 1990. Vegetation Analysis / Summer Expertise, University of Colorado, Boulder, CO. Subset of those offered additional work from the 1989 crew. Data collection from belt and line-intercept transects at over 125 sites at Fort Hood Army Base in Killeen, TX. Contracted as part of the Army Corps of Engineers Construction and Engineering Laboratories (CERL) efforts toward the Integrated Training and Management Program (ITAM). Vegetation identification, locating sites from satellite telemetry and topographic maps, basic

field work in hot climate, off road vehicle use, coordinating with range officers, etc.

August 1989-June 1990. Office Assistant, Housing and Dining, Texas Tech University, Lubbock, TX. Same duties as described for 1990-1991.

June 1989-August 1989. Vegetation Analysis / Summer Expertise, University of Colorado, Boulder, CO. Data collection from belt and line-intercept transects at over 125 sites at Fort Hook Army Base in Killeen, TX. Contracted as part of the Army Corps of Engineers Construction and Engineering Laboratories (CERL) efforts toward the Integrated Training and Management Program (ITAM). Vegetation identification, locating sites from satellite telemetry and topographic maps, basic field work in hot climate, off road vehicle use, coordinating with range officers, etc.

October 1985-August 1987. Mechanic, Parks and Recreation, City of Midland, Midland, TX. Repair and maintenance of golf course equipment (tractors, trucks, mowers, etc.), cutting and welding for fabrication and repair of various devices (esp. water delivery pipes / pumps), equipment operation and use (front-end loader, backhoe, tractor, mowers, etc.), supervision of a small operations crew, ensuring projects remained within budget.

April 1981-June 1984. Director Summer Youth Camp, Lifeguard, Swimming Instructor, Day Camp Staff, Front Desk Personnel, shuttle and bus driving, etc., Midland YMCA Inc. Midland, TX. Much was part-time employment during high school or summers, but director duties included supervision of 5-7 employees, budget responsibilities, scheduling activities and ensuring safe conditions for 50-100 youth.

SERVICE ON COMMITTEES:

August 2022-December 2022. Chair of Hiring Committee for both Biology opening and Math opening, Eastern New Mexico University, Ruidoso, NM.

November 2016-May 2022. Safety Committee (campus wide), University of Nebraska at Kearney, NE

August 2016-May 2022. Sub-committee for Biology Graduate Program, University of Nebraska at Kearney, NE.

May 2016-August 2020. Department of Biology's representative on the Master's program in Science and Math Education (cross colleges, M.S.Ed. degree), University of Nebraska at Kearney, Kearney, NE.

March 2014-May 2014. Search Committee for Assistant / Associate Professor of Biology with public health emphasis, University of Nebraska at Kearney, Kearney, NE.

September 2013-January 2014. Search Committee for Assistant / Associate Professor of Biology with plant biology emphasis, University of Nebraska at Kearney, Kearney, NE.

December 2012-May 2022. Graduate Assessment Committee, Department of Biology

Graduate Program, University of Nebraska at Kearney, Kearney, NE.

October 2012-October 2013. Faculty Senate Representative (elected) to Academic Information and Technology Committee, University of Nebraska at Kearney, Kearney, NE.

April 2012-May 2014. Representative for Natural and Social Sciences, Faculty Senate (elected), University of Nebraska at Kearney, Kearney, NE.

October 2011-October 2013. College of Natural and Social Sciences Representative to eCampus Committee (elected), University of Nebraska at Kearney, Kearney, NE.

August 2011-August 2013. Subcommittee for Graduate Research, Department of Biological Sciences, University of Nebraska at Kearney, Kearney, NE.

August 2011-May 2022. Graduate Curriculum Committee, Department of Biological Sciences, University of Nebraska at Kearney, Kearney, NE.

January 2010-May 2022. Graduate Committee, Department of Biological Sciences, University of Nebraska at Kearney, Kearney, NE.

March 2010-August 2011. Search Committee for Assistant Professor in Biology, Department of Biology, University of Nebraska at Kearney, Kearney, NE.

March 2010-January 2011. Ad hock committee for revision of the Graduate Handbook for biological sciences, University of Nebraska at Kearney, Kearney, NE.

September 2007-July 2008. Arts and Sciences Representative to the Graduate Council, College of St. Mary, Omaha, NE.

August 2007-July 2008. Member, Committee for Honors and Distinguished Scholars Program, College of St. Mary, Omaha, NE.

October 2002-December 2005. Member, Subcommittee on Safety / Biosafety, Omaha Veterans Administration Medical Center, Research Services, Omaha, NE.

June 2002-July 2006. Ad hoc Proteomics Equipment Committee, Omaha Veterans Administration Medical Center, Research Services, Omaha, NE.

SOCIETY MEMBERSHIPS AND SERVICE:

A. MEMBERSHIPS:

Raptor Research Foundation (2010-2020)

Association of Field Ornithologists (2010-2020)

The Human Anatomy & Physiology Society (2009-2018)

The Wildlife Society (1987-2018, on and off)

Nebraska Chapter of the Wildlife Society (2010-2022)

Central Mountain and Plains Section of the Wildlife Society (2010-2022)

The Wilson Ornithological Society (2015-2023)

B. SERVICE TO PROFESSION:

November 25, 2016. Reviewer for the Journal of Raptor Research.

March 31, 2016. Reviewer for The Auk: Ornithological Advances.

August 2014-May 2016. Faculty Advisor for the Student Chapter of the Wildlife Society.

January 29, 2016. Book review for The Wilson Journal of Ornithology. Winter's Hawk: Red-tails on the Southern Plains, by Jim Lish.

August 5, 2015 - January 15, 2016. Reviewer for The Wilson Journal of Ornithology. (author revisions were re-reviewed in January 2016).

December 10, 2014. Invited to participate in development of a Prescribed Fire Coucil / Coalition / Group for Nebraska with the Nebraska Game and Parks (private lands), Sandhills Task Force, Pheasants Forever and Loess Canyons Rangeland Alliance.

February 2014 - February 2017. Executive Board for the Nebraska Chapter of the Wildlife Society. Elected in November, term ends in February of 2016.

August 2014-May 2016. Faculty Advisor for the Student Chapter of the Wildlife Society.

January 2013-February 2013. Participated in a thematic analysis of research conducted at University of Nebraska System on behalf of the Robert B. Daugherty Water for Food Institute.

March 2013-May 2013. Reviewer, peer reviewed approximately 30 abstracts for the Annual Meeting of The Wildlife Society held in Milwaukee, Wisconsin.

September 2009-December 2009. Reviewer, peer review for articles for consideration in the Proceedings of the 21st North American Prairie Conference.

September 2008-December 2008. Reviewer, peer review for articles under consideration for the Proceedings of the 22nd North American Prairie Conference.

TEACHING ACTIVITIES:

A. COURSES TAUGHT (with catalog description):

<u>Principles of Biology</u> (BIOL2110), lecture and laboratory, Eastern New Mexico University, Ruidoso, NM. Principles of Biology is a lab science course designed for pre-nursing, biology or natural science majors. This course will help prepare students with a background in science education and should contribute to their basic understanding of biology and chemistry.

<u>Human Anatomy and Physiology I</u> (BIOL2110), lecture and laboratory, Eastern New Mexico University, Ruidoso, NM. Human Anatomy and Physiology I is a core course

requirement for nursing students and is relevant to all students in medical sciences. Additionally, A&P applies to general Biology degrees.

<u>Human Anatomy and Physiology II</u> (BIOL2225), lecture and laboratory, Eastern New Mexico University, NM. Human Anatomy and Physiology II is a core course requirement for nursing students and is relevant to all students in medical sciences. Additionally, A&P applies to general biology degrees.

<u>Microbiology</u> (BIOL2310), lecture and laboratory, Eastern New Mexico University, Ruidoso, NM. Microbiology (previously BIOL 214) is an upper division course designed for biology, nursing, or pre-medical or dental majors.

General Chemistry I for STEM Majors, lecture and laboratory, Eastern New Mexico University, Ruidoso, NM. General Chemistry I is a lab science course for science majors, including biology, nursing, and pre-med. This course is also appropriate for education majors, who wish to teach any science. This course is accepted by all New Mexico institutions of higher learning.

<u>Current Issues</u> (BIOL881), distance graduate program, University of Nebraska at Kearney, NE. Students participate in online discussion of selected topics in a seminar format.

<u>Wildlife Conservation</u> (BIOL330), on campus, lecture and laboratory, University of Nebraska, Kearney, NE. Problems of wildlife conservation, particularly as they apply to Nebraska. This includes a brief look at wildlife management techniques, and the history, sociology, and politics of wildlife conservation. Three hours of laboratory each week.

Introduction to Graduate Study (BIOL 820), distance graduate program, University of Nebraska at Kearney, NE. An introduction to graduate research methods and biological techniques for the professional teacher and biologist. Emphasis on literature of science, design of a problem, methods and techniques of biological investigation and scientific writing. The student will submit a research proposal as one requirement of the course. No grade of incomplete will be given. The student is encouraged to take this course during his/her first nine hours of graduate work in Biology.

Regional Anatomy (BIOL 830), distance graduate program, University of Nebraska at Kearney, Kearney, NE. A detailed investigation of the anatomy and physiology of a specific region of the human body. Students will select an instructor-approved region to study. Coursework consists of extensive use of Internet and library resources to produce a high quality, properly cited paper roughly equivalent to a book chapter on the topic. Not recommended for students without some anatomy and physiology knowledge.

Immunology of Liver Disease (BIOL 830), distance graduate program, University of Nebraska at Kearney, NE. Course consists of an overview of immunology with emphasis on antigen processing. Then the current opinions on the role of immune responses, such as the breaking of tolerance, in the development of liver diseases will be discussed. Protein modifications associated with alcoholic liver disease will be covered.

<u>Essential Human Anatomy</u> (BIOL 838), distance education graduate program, University of Nebraska at Kearney, Kearney, NE. Human anatomy including essential aspects of functional morphology will be covered. Topics coved may include the integumentary, skeletal, muscular, nervous, endocrine, circulatory, lymphatic, respiratory, urinary, digestive and reproductive systems. Detailed discussion of specific anatomical regions will be required.

Human Physiological Systems (BIOL 839), distance education graduate program, University of Nebraska at Kearney, Kearney, NE. General human physiology will be studied with an emphasis on systems. The integumentary, skeletal, muscular, nervous, endocrine, circulatory, lymphatic, respiratory, urinary, digestive, immune and reproductive systems will be discussed. Salient mechanical, physical and biochemical processes of organs, tissues and cells will be covered. Anatomy will be included at a level necessary to make sense of the system's function.

<u>Functional Morphology</u> (BIOL866), distance, University of Nebraska at Kearney, Kearney, NE. A study of the structure, form, and function of morphological adaptations in plants and animals (organisms) as examined through a mechanical, ecological, and evolutionary perspective. This course will investigate the form and function of organisms through lecture, laboratory-like assignments, discussion, and independent research projects.

<u>Biological Perspectives</u> (BIOL836), distance, University of Nebraska at Kearney, NE. A review of the major advances in biology from the ancients to the present, with emphasis on paradigm shifts and science as a human endeavor.

Introduction to Public Health (HSCI 140), on campus, University of Nebraska at Kearney, Kearney, NE. A one semester introductory course concerning various topics of public health. Key topics which will be discussed include history, current issues and future trends in public health; epidemiology, epidemics and data collection; biomedical basis of various current diseases; methods of prevention of diseases including vaccinations, diet and healthy habits; environmental issues (water, air, food and drug safety); the role of government, organizations, and law in public health; emergency preparedness in the home, community and nationally for health, natural disasters, and bioterrorism; health dollars and insurance; and health needs of specific populations. The topics listed will be discussed briefly so that students can become familiar with general concepts.

<u>Introduction to Epidemiology</u> (BIOL 110), on campus, University of Nebraska at Kearney, Kearney, NE. An introductory survey of modern epidemiology including what epidemiology is, new discoveries, and how epidemiology affects our lives.

<u>Mushrooms of North America</u> (BIOL 830), distance education graduate program, University of Nebraska at Kearney, Kearney, NE. A survey course covering the natural history of mushrooms likely to be encountered in North America. Taxonomy, identification, natural history and ecological roles of mushroom producing fungi will be covered.

<u>Biology II</u> (BIOL 106), on campus, laboratory, University of Nebraska at Kearney, Kearney, NE. A study of the fungi, protists, and bacteria. In addition, a study of the organization and function of living systems, including development, metabolism, reproduction, inheritance, and the basics of biotechnology. Two hours of laboratory each week.

<u>Human Anatomy and Physiology</u> (BIOL 225), on campus, laboratory, University of Nebraska at Kearney, Kearney, NE. A study of the anatomy and physiology of the systems of the human body and how they function including cellular mechanisms and tissues, the skin, the skeletal system, the muscular system and the nervous system. Two hours of laboratory each week. This course is primarily intended for students planning to pursue training in one of the Health Programs.

<u>Human Anatomy and Physiology</u> (BIOL 226), on campus, laboratory, University of Nebraska at Kearney, Kearney, NE. A continuation of the study of the systems of the human body including the circulatory system and its components, the lymphatic system, the respiratory system, the digestive system, the urinary system, the endocrine glands and the reproductive system. Two hours of laboratory each week.

General Biology I (BIO 112),on campus, lecture and laboratory, Iowa Western Community College, Council Bluffs, IA. General Biology I is designed for science majors. Topics include scientific methodology, the molecular and cellular basis of life; cell division, photosynthesis and respiration; genetics, evolution and ecology; classification and taxonomy.

<u>Biological and Scientific Principles</u> (BIO 105), on campus, College of St. Mary. This course will provide students with a basic biological and science background. It is specifically designed for the practical nursing students or for students that have little or dated science backgrounds. This class will prepare students to take Anatomy and Physiology courses. Students will cover topics such as organic molecules, cells, tissues, bones, muscles, heart, brain, DNA, and metabolism.

<u>Environmental Sciences</u> (ENV 111), on campus, lecture and laboratory, Iowa Western Community College, Council Bluffs, IA. Environmental Science 111 is designed for students interested in ecology. Topics include: ecological principles and the study of ecosystems; population dynamics; water, air, soil, food, waste and energy resources; and sustaining biodiversity of species and ecosystems. Laboratory exercises and field trips complement each area of study.

<u>Human Anatomy</u> (BIO 220), on campus, College of St. Mary. Application of historical, cytological, and anatomical concepts using charts, models, fetal pig, cat, and the human cadaver (not available at CSM). Microscopic analysis of select tissues and organs will also be stressed.

<u>Human Anatomy Lab</u> (BIO 221), on campus, College of St. Mary. Application of historical, cytological, and anatomical concepts using charts, models, fetal pig, cat, and the human cadaver (not available at CSM). Microscopic analysis of select tissues and organs will also be stressed. Lab three hours per week.

<u>Human Physiology</u> (BIO 222), on campus, College or St. Mary, Omaha, NE. A detailed analysis of the functioning of the human organism, stressing a biochemical basis. Important concepts in cell physiology, nerve and muscle physiology, excretory physiology, and respiratory physiology will be developed. A foundation to drug classes and mechanics of action will also be developed. Lecture three hours per week.

Organic Chemistry Laboratory (CHEM 2274), on campus, University of Nebraska at Omaha. A laboratory course in the skills and techniques of experimentation in organic chemistry. An immersion laboratory meeting twice weekly (6+ hours per week).

General Chemistry I Laboratory (CHEM 1184), on campus, University of Nebraska at Omaha. A laboratory program designed to enhance laboratory skills and illustrate chemical principles.

<u>Fundamentals of College Chemistry Laboratory</u> (CHEM 1144), on campus, University of Nebraska at Omaha. This course is intended for students needing a one-semester introductory course with laboratory such as allied health students and for students seeking a stronger background before enrollment in chemistry for majors.

<u>Pathophysiology</u> (BIO 366), on campus, College of St. Mary and Methodist District College, Omaha, NE. Deals with the disruption of normal physiology with the alterations, derangements, and mechanisms involved in disruption and how they manifest themselves as signs, symptoms, physical and laboratory findings. General methods of treatment will also be covered.

B. SUPERVISING / MENTORING UNDERGRADUATE RESEARCH:

Logan Grose, mentor, student is interested in raptor studies, will be involved in validation of indexes as measures of raptor abundance and tree use by beaver, fall 2019-spring 2020.

Bradan Hengen, agreed to mentor research related to student interest in physical therapy and joint movement (student opted into seminar over Research Methods II), spring 2018-2019.

Michael Buck, Biology 420 mentor, Molecular sexing of red-tailed hawks, fall 2016-spring 2017.

Seth Schnakenberg, Biol420 mentor, Small mammal abundance and body condition of raptors (student opted to graduate as soon as possible with a General Studies degree), fall 2016-spring 2017.

Madeline Franks, Biology 420 Mentor, Correlation of coyote abundance to distance from campgrounds in Royal, Nebraska, (student left UNK, was a senior at UNL in 2021) spring 2015-2017.

Marc Stokes, Biology 420 Mentor, Changes in coyote abundance with cattle calving, fall 2013-spring 2014.

Derek Marshall, Biology 420 Mentor, Effect of non-essential amino acids on growth of U379 cells, spring 2013-spring 2014.

Kari Page, Biology 420 and Undergraduate Research Fellow Mentor, Interaction of predators with Sherman live traps, spring 2012-spring 2014. Oral presentation was judged as 2nd overall by peers and faculty at the July, 2013 Department of Biology Research Symposium. Ms. Page also studied the feasibility of radio collaring raccoon within capabilities available at UNK.

Matthew Turco, Biology 420 Mentor, Determination of red-tailed hawk gender ratios in Buffalo, County, spring 2012-fall 2013.

Kaitlyn Darveau, Biology 420 Mentor, Estimation of raptor density in Buffalo County Nebraska, spring 2011-spring 2013.

Rae Fahrlander, Biology 420 Mentor, Utilization of a condition index for evaluation of American Kestrels in Buffalo County, fall 2011-spring 2013.

Brent Wheaton, Biology 420 Mentor, Use of remote cameras for evaluation of tree removal on habitat use along the Arikaree River in Nebraska, fall 2011-fall 2012.

Kristen Lenchowski, UNMC Summer Undergraduate Research Program, 2004 and 2006.

Becky Duchman, UNMC Summer Undergraduate Research Program, 2004.

Anya Kim, UNMC Summer Undergraduate Research Program, 2001 and 2002.

C. SUPERVISING ON-CAMPUS GRADUATE RESEARCH:

Marilyn Wright, as <u>member of committee</u>, chair Dr. Bickford, fall 2015-fall 2017. Behavior comparisons between goshawks in Montana and Finland.

Brett Miller, as <u>member of committee</u>, chair Dr. Schoenebeck, spring 2015-spring 2017. Recruitment and growth of white bass in Harlan Reservoir.

Taylor Hyatt, as <u>member of committee</u>, chair Dr. Panaitof, fall 2013-spring 2014. Cloning and expression of a novel neurotransmitter receptor in burying beetles.

Rebecca Pawlak, as <u>member of committee</u>, chair Dr. Schoenebeck, spring 2013-spring 2015. Efforts to understand stocked yellow perch populations in the Interstate-80 borrow pits of Nebraska.

Li Wang, as <u>member of committee</u>, chair Dr. Twigg, spring 2012-spring 2014. Monitoring lipid accumulation under nitrogen deprivation in Chlamydomonas renhartii.

Korby Mintken, as <u>mentor</u>, fall 2012-spring 2013. Distribution, condition and movement of diurnal raptors in the agricultural landscape of central Nebraska.

Robert J. Pavlovsky, as <u>chair of committee</u>, fall 2011-spring 2014. Immunological response to proteins modified with aldehydes associated with cigarette smoke.

Brian Klassen, Nellie-House Cravern Scholar, 2002-2004. Contributed to training in cell cycle analysis with this student successfully completing experiments resulting in quality data reported in the literature (Biochem. Pharm. 2004).

Yen Zhang, NSRA post-doctoral fellow for Martha Gentry, Ph.D., 2002-2003. Instruction on basic molecular biology with emphasis on expression of proteins in *E. coli*. She successfully cloned, expressed and purified recombinant pneumolysin during training.

D. MENTORING DISTANCE MASTERS RESEARCH PROJECTS:

"Nest-Site Selection Preferences of *Xylocopa virginica*," (May 2016 - December 2017). Advised: Kevin Fandrich.

"Four Landscape-Use Effects in the Size of Honeybee Populations in Northern Kentucky," (January, 2014-May, 2016). Advised: Jeffrey Steller.

"Common Snapping Turtle (Chelydra serpentina) frequency and distribution in Cass County, Nebraska determined by occurrence and size of adult C. serpentina trapped in lentic vs. lotic waters," (January, 2014-present). Advised: Colleen Rothe-Groleau.

"The Influence of Native Gardens on Bee Populations," (June 2014-present). Advised: Kateri McKinney.

"Macroinvertebrate response to hydrogen peroxide as a cyanobacterial treatment," (June 2014-May 2016). Advised: Sarah Lehman.

"Differences between Ixodes scapularis populations in wet and dry areas of Montgomery County Maryland," (June, 2014-December 2015). Advised: Christopher Kornak.

"Identifying the distribution of Red fox, Vulpes vulpes, and Gray fox, Urocyon cinereoargenteus, in Monmouth County, New Jersey," (January, 2014-December 2015). Advised: Kevin Coffey.

"Influence of Satiation on Filtration Feeding Rates of Brine Shrimp," (August 2013-December 2015). Advised: Alka McAndrew.

"Influence of Human Abundance on Coyote Density in the Hidden Valley Wildlife Preserve," (August 1, 2013 - December 2015). Advised: Cyrine Kebhaj.

"Does agriculture (primarily hayfields) have an affect on the population of native birds of prey in Eastern El Paso County, Colorado?" (May 1, 2013 - July 2014). Advised: Tracy Lee.

"Gender influence on early emergence from overwintering of box turtles (Terrapene carolina)," (January 1, 2013 - December 2015). Advised: Kelly Ingram.

"Influence of Mite Infestation on Abdominal Color Patches in Northern Fence Lizards (Sceloporus undulatus hyacinthinus)," (January 2013 - December 2014). Advised: Sonya Marker.

"Effects of Traumatic Shell Fracture on Hematology Values in Chelonians," (November

1, 2012 - July 2014). Advised: Sonja Ahlberg.

"Zebra mussels release greater concentrations of phosphorus when filtered as particulates in comparison to plankton.," (October 1, 2012 - December 2014). Advised: Annamarie Walker.

"Environmental Factors that Determine Bird Species Richness in Urban Parks," (October 1, 2012 - December 2013). Advised: Erik Hauptman.

"Influence of grassland type on American Kestrel (Falco sparverius) population densities," (October 1, 2012 - December 2013). Advised: Ryan Mahlberg.

"Contribution of Artificial Streams to Urban Ecosystems Services and Impact of Chlorination," (July 1, 2012 - Present). Advised: Jody McInerney.

"Influence of Visitor Population Size on Vocalization in Captive Gibbons," (July 1, 2012 - Present). Advised: Katie Hoos.

"The effects of recreational water park drainage on the local stream environment in Scotrun, PA.," (April 1, 2012 - Present). Advised: Angela Sinker.

"The Ability of the Hooded Pitcher Plant, Sarracenia minor, to Compete with the Dwarf Papyrus, Cyperus prolifer," (March 1, 2012 - July 2014). Advised: Sara Ouly.

"Acid Scarification to Break Seed Dormancy of Invasive Weed, Alliaria petiolata, and Near Infrared Moisture Content," (September 1, 2011 - July, 2014). Advised: Marcello Mangano.

"Reproductive Effects of Estrogen on Potamopyrgus antipodarum," (June 1, 2011 - Present). Advised: Tara Stukkie.

"Influence of Food Distance on Eastern Grey Squirrel (Sciurus carolinensis) Defensive Behavior as a Response to Threat Stimuli," (April 1, 2012 - May 30, 2013). Advised: Katie DiTringo.

"Influence of Cough Syrup on Pea Plant Growth," (August 1, 2011 - May 30, 2013). Advised: Nicole Fusco.

"Effects of Whitetail Deer Grazing on the Establishment of Sewn Native Woodland Seeds in Areas of Garlic Mustard Abundance," (August 1, 2011 - April 1, 2013). Advised: Crystal White.

"The influence of artificial light on the movement behavior of individual Peromyscus in an experimental setting," (July 1, 2012 - present). Advised: Claudia Willis.

"Invasive potential of Nassella tenuissima in Southern California's San Diego County; A comparison of germination times for native grasses and a potential invader," (April 1, 2012 - December 1, 2012). Advised: Rebecca Soco.

"Caffeine and the reproductive success of composting earthworms," (February 1, 2012 - December 1, 2012). Advised: Theresa Lau.

"The effects of salinity on the freeze tolerance of brine shrimp (Artemia franciscana) nauplii," (May 1, 2011 - December 1, 2012). Advised: Lucas Pignolet.

"Global Warming: Effects of Climate Change on the Plant Phenology of Western North Carolina," (November 1, 2010 - December 1, 2012). Advised: Autumn McCarver.

"Influence of Runoff from the Riverbanks Zoo on Levels of Coliform in the Saluda River," (November 1, 2010 - December 1, 2012). Advised: Della Wiser.

"The effect of water column temperature change on somatic growth of Daphnia magna," (March 1, 2012 - November 1, 2012). Advised: Francisco Ramirez.

"Crayfish predation efficiency: A comparison of a native species (Orconectes virilis) to an invasive species (Orconectes rusticus) in amphibian capture," (April 1, 2011 - May 1, 2012). Advised: Michael Warren.

"Feeding Behaviors of Three Captive Manta birostris," (November 1, 2010 - May 1, 2012). Advised: Kristi Fonrouge.

"Effects of an Increase in Caffeine Uptake on the Reaction Time of Pilots," (April 1, 2010 - May 2014). Advised: Emily Marr.

"Significance of Time Intervals on the Effectiveness of Rapid Prescreening in Cervical Cytology," (July 1, 2010 - May 1, 2011). Advised: Karyn Varley.

"Long term effects on Saliva production in relation to varying doses of whole body irradiation in Rhesus macaques (*Macaca mulatta*)," (June 1, 2010 - May 1, 2011). Advised: Eric Steelman.

LICENSES, PERMITS, AND OTHER AUTHORIZATIONS:

May 2023-December 2023. Scientific and Educational Permit, Nebraska Game and Parks Commission. Sub-permit for salvage of bat species occurring in Nebraska (Kate MacEwan with WEST, Inc. as the master permit holder).

June 2014-March 2017. Scientific Collecting Permit, Department of the Interior, U.S. Fish and Wildlife Service, Migratory Bird Permit Office. Collection permit for catch, measure and release of several bird of prey species in the state of Nebraska. Permit also authorizes taking of breast feathers for use during PCR-based sexing of birds.

October 2010-December 2017. Scientific and Educational Permit, Nebraska Game and Parks Commission. Collection permit for catch, measure and release of birds of prey in Buffalo and surrounding counties (renewed with annual reports).

May 2011-March 2014. Scientific Collecting Permit, Department of the Interior, U.S. Fish and Wildlife Service, Migratory Bird Permit Office. Collection permit for catch, measure and release of several bird of prey species in the state of Nebraska.

November 2008-September 2010. Special Use Permit(s), United States Department of the Interior, Fish and Wildlife Service. Permission to conduct research at the Boyer Chute National Wildlife Refuge (required annual renewal).

October 1992-August 1999. Falconry Permit (General), United States Department of the Interior, Fish and Wildlife Service. Authorization to possess raptors for falconry purposes.

GRANT ACTIVITIES AND SUPPORT (~\$3.5 million direct costs):

Grant Proposal, submitted 1/25/2016. "Identification of climate change effects on goshawks a top tier predator in northern forests". Co-principle with Nate Bickford. National Science Foundation, RUI. \$601,918. Not Funded.

Grant Proposal, submitted 10/28/2013. "Humoral Immune Response to Methylmercury Modified Proteins". Primary Investigator, R21 in response to a specific Request for Applications related to Environmental Exposures in the Development of Autoimmune Disease (ES-13-011). NIH, National Institute of Environmental Health Sciences. \$194,000. Not Funded.

5/1/2012-8/17/2012. "Effect of Tree Removal on Riparian Habitat Use along the Arikaree River in Dundy County Nebraska". Faculty Mentor for Brent Wheaton, Undergraduate Student Research Grant Award, University of Nebraska at Kearney. <u>\$400</u>. Funded.

10/5/2011-10/9/2011. "Evaluation of Raptor Density in the Agricultural Landscapes of the Central Nebraska". CNSS Travel Award for attending the 2011 Raptor Research Foundation Meeting in Duluth, MN. <u>\$500</u>. Funded.

1/1/2009-12/31/2009. "Integration of Off the Shelf Consumer Electronics for Rapid Collection of Field Data". Primary Investigator, NASA Nebraska Space Grant. \$2,250. Awarded.

7/1/2005-6/30/2010. "Alcohol and Liver Endothelial Cells in Immune Responses". Coinvestigator, 35% effort, R01, NIH/NIAA (PI Thiele). Project studies the relationship between modified proteins associated with ethanol metabolism with inflammatory and immunomodulatory activities of liver endothelial cells. \$900,000. Funded.

6/1/2004-5/30/2009. "Alcohol Liver Disease: Immune Response to Aldehyde Modified Proteins". Co-Investigator (50% effort), VA Merit Review (PI Thiele), Department of Veterans Affairs. The purpose of this project is to examine the ability of proteins modified with aldehyde adducts to induce immune responses. \$1,073,700. Funded.

6/1/04-5/31/09. "Immune Response to Acetaldehyde Adducts". Co-Investigator (25% effort), 2R01/R37 AA07818-08A1 (PI Klassen), NIH/NIAAA, M.E.R.I.T. Award. The major focus of this grant is to examine whether metabolically derived aldehydes adducted to exogenous and/or endogenous proteins act as antigens to induce immune responses related to liver damage. The R01 was converted to an R37 beginning in June of 2004. University of Nebraska Medical

Center. \$1,548,407. Funded.

6/1/98-6/1/99. NRSA post-doctoral fellow. (Fellowship, PI Millhorn), Support via NIH training grant in cellular and molecular physiology. University of Cincinnati, Department of Cellular and Molecular Physiology. <u>Salary</u>, <u>benefits</u>, <u>supplies</u> and <u>travel</u>.

PUBLICATIONS, PRESENTATIONS AND ABSTRACTS:

A. PUBLICATIONS IN SCHOLARLY JOURNALS:

Freeman TL. Book Review (invited), Winter's Hawk: Red-tails on the Southern Plains. The Wilson Journal of Ornithology. 2016. 128(2):467-68.

Schoenebeck CW and TL Freeman. Sex and age group specific changes in body condition of red-tailed hawks in central Nebraska. The Wilson Journal of Ornithology. 2014. 126(3):575-580.

Freeman TL. Diurnal raptors of Buffalo County Nebraska. The Prairie Naturalist. 2014. 46:48-49.

Freeman TL. Monitoring the annual increase in garlic mustard in eastern Nebraska. Proceedings of the 22nd North American Prairie Conference. 2011. 22:146-147.

Freeman TL. Riparian forest associated with tall-grass prairie: species composition and distribution along the Missouri River of central Nebraska. Proceedings of the 21st North American Prairie Conference. 2010. 21:63-68.

Thiele GM, Duryee MJ, Freeman TL, Sorrell MF, Willis MS, Tuma DJ and LW Klassen. Rat sinusoidal liver endothelial cells (SECs) produce pro-fibrotic factors in response to adducts formed from the metabolites of ethanol. Biochem Pharmacol. 2005. 70(11):1593-600.

Duryee MH, Freeman TL, Willis MS, Hunter CD, Hamilton III BC, Suzuki H, Tuma DJ, Klassen LW and GM Thiele. Scavenger receptors on sinusoidal liver endothelial cells (SECs) are involved in the uptake of aldehyde-modified proteins. Mol Pharmacol. 2005. August 16, epub ahead of print.

Freeman TL, Tuma DJ, Thiele GM, Klassen LW, Worrall S, Niemela O, Parkkila S, Emery PW and VR Preedy. Recent advances in alcohol-induced adduct formation. Alcohol Clin Exp Res. 2005. 29(7):1310-6.

Freeman TL, Haver A, Duryee MJ, Tuma DJ, Klassen LW, Hamel FG, White RL, Rennard SI and GM Thiele. Aldehydes in cigarette smoke react with the lipid peroxidation product malonaldehyde to form fluorescent protein adducts on lysines. Chem Res Toxicol. 2005. 18(5):817-24.

Thiele GM, Hill GE, Pavlik JA, Freeman TL, Tuma DL, Duryee MJ and LW Klassen. Halothane potentiates the alcohol-adduct induced TNF-alpha release in heart endothelial cells.

BMC Anesthesiol. 2005. 5(1):3.

Duryee MJ, Klassen LW, Freeman TL, Willis MS, Tuma DJ and GM Thiele. Lipopolysaccharide is a cofactor for malondialdehyde-acetaldehyde adduct-mediated cytokine/chemokine release by rat sinusoidal liver endothelial and kupffer cells. 2004. Alcohol Clin. Exp. Res. 28(12):1931-8.

Thiele GM, Freeman TL and LW Klassen. Immunologic mechanisms of alcoholic liver injury. Semin. Liver Dis. 2004. 24(3):273-87. Review.

Duree MJ, Willis MS, Freeman TL, Kuszynski CA, Tuma DJ, Klassen LW and GM Thiele. Mechanisms of alcohol liver damage: aldehydes, scavenger receptors, and autoimmunity. 2004. Frontiers in Bioscience. 9:3145-3155.

Freeman TL, Thiele GM, Klassen LW, Klassen BT and ME Mailliard. N-(methylamino)isobutyric acid inhibits proliferation of CFSC-2G hepatic stellate cells. 2004. Biochem. Pharm. 68(2):223-230.

Thiele GM, Duryee MJ, Willis MS, Sorrell MF, Freeman TL, Tuma DJ and LW Klassen. 2004. Malondialdehyde-acetaldehyde (MAA) modified proteins induce pro-inflammatory and pro-fibrotic responses by liver endothelial cells. Comp. Hepatol. 14(3):S25.

Duryee, MJ, LW Klassen, TL Freeman, M Willis, DJ Tuma and GM Thiele. 2003. Chronic ethanol consumption impairs receptor-mediated endocytosis of MAA-modified albumin by liver endothelial cells. Biochem. Pharm. 66(6):1045-1054.

Freeman TL, GM Thiele, DJ. Tuma TK Machu and ME Mailliard. 2002. ATA2-mediated amino acid uptake following partial hepatectomy is regulated by redistribution to the plasma membrane. Archive Biochem. Biophy. 400:215-222.

Zeitouni, N, DW Eubank, AQ Lee, MG Oxford, TL Freeman, ME Mailliard, and EG Beale. 2002. Phosphoenolpyruvate carboxykinase is induced in growth-arrested hepatoma cells. Biochem. Biophys. Res. Comm. 290(5):1513-20.

Freeman TL, KK Kharbanda, DJ Tuma and ME Mailliard. 2002. Inhibition of hepatic stellate cell collagen synthesis by N-(methylamino)isobutyric acid. Biochem. Pharm. 63:697-706.

Freeman TL and ME Mailliard. 2000. Post-transcriptional regulation of ATA2 transport during liver regeneration. Biochem. Biophys. Res. Comm. 278:729-732.

Conrad PW, TL Freeman, D Beitner-Johnson and DE Millhorn. 1999. EPAS1 transactivation during hypoxia requires p42/p44 MAPK. J. Biol. Chem. 247:33709-13.

Freeman TL, HQ Ngo and ME Mailliard. 1999. Inhibition of system A-mediated amino acid transport and hepatocyte proliferation following partial hepatectomy in the rat. Hepatology. 30:437-444.

Conforti L, S Kobayashi, D Beitner-Johnson, PW Conrad, TL Freeman and DE Millhorn.

1998. Regulation of gene expression and secretory functions in oxygen-sensing pheochromocytoma cells. Respir. Physiol. 115(2):249-260.

Haseloff BJ, TL Freeman, V Valmeekam, MW Melkus, F Oner, MS Valachovic and MJ San Francisco. 1998. The *exuT* gene of *Erwinia chrysanthemi* EC16: nucleotide sequence, expression, localization and relevance of the gene product. Molecular Plant Microbe Interactions. 11(4):270-276.

Freeman TL, and MJ San Francisco. 1994. Cloning of a galacturonic acid uptake gene from *Erwinia chrysanthemi* EC16. F.E.M.S. Micro. Lett. 118:101-106.

B. ABSTRACTS AND PRELIMINARY COMMUNICATIONS:

Freeman TL and CW Schoenebeck, American Kestrel, but not Red-tailed Hawk, Observations Indicate a Bias Toward the Roadway. Midwest Fish and Wildlife Conference, virtual, February, 2021.

Freeman TL. Pattern of Fall Migration by Diurnal Birds of Prey in South Central Nebraska. Nebraska Chapter of the Wildlife Society. Kearney, NE, February, 2020.

Freeman TL and Grose L. Tree Use by North American Beaver in the Great Bend Region of the Platte River. Nebraska Chapter of the Wildlife Society. Kearney, NE, February, 2020.

Freeman TL and CW Schoenebeck. Validation of road counts as an index of abundance for red-tailed hawks and American kestrels in the agricultural landscapes of south-central Nebraska. Central Mountain and Plains Section of The Wildlife Society. Steamboat Springs, CO, August 8-11, 2016.

Carlson MA, Eudy JD, Elthon TE, Cerny RL, Freeman TL, Jennings MA, Thompson JS. Wound Regulation by Interferon-gamma. American Surgical Association 2012. San Francisco CA, April 26-28, 2012.

Freeman TL. Evaluation of Raptor Density in the Agricultural Landscapes of Central Nebraska. Raptor Research Foundation Annual Meeting. Duluth, MN, October 5-9, 2011.

Freeman TL. Monitoring the annual increase in garlic mustard in eastern Nebraska. The 22nd North American Prairie Conference. University of Northern Iowa, Cedar Falls, August 1-5, 2010.

Freeman TL. Riparian forest associated with tall-grass prairie: species composition and distribution along the Missouri River of central Nebraska. The 21st North American Prairie Conference. Winona State University, Winona, MN. August 2-4, 2008.

MJ Duryee, LW Klassen, MS Willis, TL Freeman, DJ Tuma and GM Thiele. Profibrotic responses by liver sinusoidal endothelial cells are inducible by malondialdehyde-acetaldehyde (MAA) modified proteins. Boston, MA. Hepatology. Vol. 40(4), Suppl. 1:1288, 2004.#

LW Klassen, TL Freeman, MJ Duryee, MS Willis, DJ Tuma, and GM Thiele. Malondialdehyde-acetaldehyde adducts: the 2004 update. International Society for Biochemical

Research on Alcohol (ISBRA). Manheim, Germany. 2004.

GM Thiele, TL Freeman, MJ Duryee, MS Willis DJ Tuma and LW Klassen. Sinusoidal endothelial cells and kupffer cells respond to proteins modified by aldehydes produced under oxidative stress. ISBRA. Manheim, Gerrmany. 2004.

Thomas L. Freeman, Geoffrey M. Thiele, Lynell W. Klassen and Mark E. Mailliard. N-(methylamino)isobutyric Acid Inhibits Proliferation of CFSC-2G Hepatic Stellate Cells. Boston, MA, Hepatology. Vol. 38(4), Suppl.1:1287, 2003.#

Geoffrey M. Thiele, Thomas L. Freeman, Monte S. Willis, Carlos D. Hunter, Dean J. Tuma, Lynell W. Klassen. Identification Of Liver Cytosolic Proteins Associated With Malondialdehyde-acetaldehyde (MAA) Adducted Liver Cytosol Induced Autoimmune Hepatitis. Boston, MA. Hepatology. Vol. 38(4), Suppl.1:679, 2003.#

Geoffrey M. Thiele, Thomas L. Freeman, Michael J. Duryee, Monte S. Willis, Dean J. Tuma, Lynell W. Klassen. Lipopolysaccharide as a Co-factor for Malondialdehyde-acetaldehyde (MAA) Modified Proteins to Induce Pro-inflammatory Responses by Kupffer and Liver Endothelial Cells. Boston, MA. Hepatolgy. Vol. 38(4), Suppl.1:1019, 2003.#

Freeman, T.L., H.Q. Ngo, T. Machu and M.E. Mailliard. Characterization of distinct System A amino acid transport activities during liver regeneration by oocyte expression and chemical modification. Washington, D.C. Gastroenterology. 118(4):A932(session 2), 2000.#

Ngo, H.Q., T.L. Freeman and M.E. Mailliard. Hepatic amino acid uptake following thioacetamide-induced cirrhosis in the rat. Journal of Investigative Medicine. 46:64A, 1998.#

Freeman TL, Ngo HQ, and Mailliard, ME. Inhibition of system A mediated amino acid transport results in decreased DNA synthesis and liver mass following partial hepatectomy. Washington, D.C. Gastroenterology. 112:A1266, 1997. #

Ngo HQ, Freeman TL, and Mailliard ME. Alterations in system A amino acid transport activity in the thioacetamide-induced cirrhotic rat. Boston, MA. Hepatology. 26:572A, 1997. #

Freeman, TL, M Melkus, B Haselof, C McMullen and MJD San Francisco. Analysis of the *exuT* DNA in *Erwinia chrysanthemi*. August, 1995. Annual meeting of the American Phytopathological Society, Pittsburgh, PA.

Freeman, TL, M Melkus, C McMullen and MJD San Francisco. Characterization of the galacturonic acid permease gene (*exuT*) of *Erwinia chrysanthemi*-gene products and relevance. 1994. Abstract 360. Annual meeting of the American Phytopathological Society, Albuquerque, N.M.

Freeman, TL and MJD San Francisco. Cloning of a galacturonic acid uptake permease from *Erwinia chrysanthemi*. 1993. Abstract presented at the Symposium on Molecular Genetics of Plant-Microbe Interactions, Abstract 025. Rutgers University, East Brunswick, NJ.

C. ORAL PRESENTATIONS:

"Comparison of Road Counts and Circle Plots for Estimating the Abundance of American Kestrel and Red-tailed Hawk". February, 2020. Nebraska Chapter of the Wildlife Society, Kearney, NE.

"Sex and Age Group Specific Changes in Body Condition of Red-tailed Hawks in Central Nebraska". January 28, 2014. 74th Midwest Fish and Wildlife Conference, Kansas City, MO.

"Road Surveys as an Index of Diurnal Bird of Prey Abundance in South-Central Nebraska". October, 2013. The Crane Trust 2nd Annual Research Symposium. Crane Trust Nature and Visitor Center, Wood River, NE.

"The Natural History of Morels". October, 2012. Big Bend Audubon Society. Rowe Sanctuary, Gibbon, NE.

"Nutrient Regulation of Cell Proliferation". April, 2005. Department of Biological Sciences. University of Nebraska at Omaha, Omaha, NE.

"Adduct chemistry and mechanisms of adduct formation". October, 2004. 12th World Congress on Biomedical Alcohol Research (ISBRA). University of Heidelberg, Heidelberg, Germany.

"Cigarette Smoke Extract and Malondialdehyde React with Lysine to form Fluorescent Protein Adducts". December, 2004. Veterans Administration Hospital, Alcohol Study Group, Omaha, NE.

"Proteomics at the Omaha VAMC: The Ciphergen System". May, 2003. Veterans Administration Medical Center, Research Services, Omaha, NE.

"System A Amino Acid Transport and Liver Regeneration: appearance of two discrete system A-like transport activities following partial hepatectomy in the rat". September, 1999. Veterans Administration Hospital, Alcohol Study Group, Omaha, NE.

"Similarities between Hypoxic Stress and Early Events following Partial Hepatectomy". May, 1999. Veterans Administration Hospital, Alcohol Study Group, Omaha, NE.

"The Role of System A in a Rat Model of Liver Regeneration". January, 1998. University of Cincinnati, Department of Cellular and Molecular Physiology, Cincinnati, OH.

"Liver Regeneration: general concepts and the role of amino acid transport". September, 1996. Texas Tech University Health Sciences Center, Division of Gastroenterology, Lubbock, TX.

"Uptake of Degraded Plant Cell Wall Molecules by *Erwinia*". October, 1995. Texas Tech University Health Sciences Center, Department of Microbiology and Immunology, Lubbock, TX.

D. MEETINGS ATTENDED (in addition to meetings with presentations indicated above):

Nebraska Chapter of the Wildlife Society. February 23-24, 2021. Annual meeting. Virtual.

Seventh North American Ornithological Conference, August 10-15, 2020. Joint AOS-AFO-RRF-WOS meeting. Virtual.

Tenth Annual Nebraska Natural Legacy Conference. October 19-23, 2020. Nebraska natural Legacy Project. Virtual.

NU Symposium on Innovation in Pedagogy and Technology. May 12, 2020. UNIT and University of Nebraska Online Worldwide, Virtual, Lincoln, NE.

Ninth Annual Nebraska Natural Legacy Conference. October 9-10, 2019. Nebraska natural Legacy Project. Gering Civic Center, Gering, NE (note only UNK faculty member in attendance).

NU Symposium on Innovation in Pedagogy and Technology. May 7, 2019. UNIT and University of Nebraska Online Worldwide, Cornhusker Marriott, Lincoln, NE.

Thirteenth Platte River Basin Ecosystem Symposium. June 5-6, 2018. The Crane Trust, Wood River, NE.

NU Symposium on Innovation in Pedagogy and Technology. May 9, 2017. UNIT and University of Nebraska Online Worldwide, Cornhusker Marriott, Lincoln, NE.

NU Symposium on Innovation in Pedagogy and Technology. May10, 2016. UNIT and University of Nebraska Online Worldwide, Cornhusker Marriott, Lincoln, NE.

Nebraska Chapter of the Wildlife Society. March 8-10, 2016. Annual meeting, Younes Convention Center, Kearney, NE.

Nebraska Department of Roads. September 24, 2015. Planning an Project Development Division, Review session for grants.

Grazing for Wildlife: Hands on field day. June 24, 2015. Nebraska Extension. Burwell, NE.

Nebraska Chapter of the Wildlife Society. February 25-26, 2015. Annual meeting, Quality Inn, Ogallala, NE.

Nebraska Prescribed Burn Conference. July 14, 2014. 2nd Annual Meeting sponsored by Nebraska Game and Parks, Holiday Inn, Kearney, NE.

NU Symposium on Innovation in Pedagogy and Technology. May15, 2014. UNIT and University of Nebraska Online Worldwide, Cornhusker Marriott, Lincoln, NE.

The Nebraska Chapter of the Wildlife Society. February 26, 2014. Annual meeting, Ramada Inn, Kearney, NE.

Rise of the MOOCs: Foreshadowing the coming of transformation of higher education? November 18-19, 2013. Midwest Higher Education Compact, 9th Annual Policy Summit. Omaha, NE.

NU Sypmosium on Innovation in Pedagogy and Technology. May 10, 2013. UNIT and University of Nebraska Online Worldwide, Nebraska Union, University of Nebraska at Lincoln.

The Crane Trust First Annual Research Symposium. October 19, 2012. Crane Trust and Visitor Center, Wood River, NE.

Association of Field Ornithologists (combined meeting with the Cooper Ornithological Society and Wilson Ornithological Society. March 9-12, 2011. Wingate Inn, Kearney, NE.

Academy for Teaching Excellence, "Values-based leadership". June 13, 2009. Iowa Western Community College, Council Bluffs, IA.

Academy for Teaching Excellence, "Helping Students to Learn in Harmony with Their Brains". March 28, 2009. Iowa Western Community College, Council Bluffs, IA.

Academy for Teaching Excellence, "Hidden Rules of Socioeconomics and Education". August 16, 2008. Iowa Western Community College, Council Bluffs, IA.