A. Department/Unit/College Goals and Priorities for the Past Year
   a. Teaching
      i. Implement new Animal Science curriculum
   b. Research
      i. Hire Grant Development Coordinator
      ii. Open and operate the new Beef Cattle Research Complex
   c. Extension
      i. Develop signature Extension programs

B. Provide Executive Summary of Accomplishments in Achieving the Goals and Priorities for the Past Year
   a. Teaching
      i. In 2011, major changes to the Animal Sciences curriculum were implemented. As part of a planning process that began approximately three years ago, the Animal Sciences curriculum was revised to provide additional options for our students. New options within the Animal Science major are: Meat Science; Livestock Media; Biomedical Science/Pre-Vet; Animal Production, Management, and Husbandry; and Animal Agribusiness. These options reflect the growing interests our students and employers have in these areas as well as the views of the faculty as to the need to modernize our curriculum. As part of this revision, our senior level livestock production courses were changed from 2 credits to 3 credits and we also implemented a requirement for an internship. Current students were given the option of continuing with the previous curriculum or picking up one of the new options. The department is experiencing record enrollment, in part, due to the new options we are offering in the Animal Science major.

   b. Research

<table>
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<th>Total</th>
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<tbody>
<tr>
<td>Peer Reviewed Publications</td>
<td>53</td>
</tr>
<tr>
<td>(published or accepted)</td>
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<td>Invited Presentations</td>
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<td>Juried Presentations/Performances/Exhibitions</td>
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<tr>
<td>Research Grants and Contracts</td>
<td>Cumulative Amount</td>
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</table>

   i. In 2011, the department hired a grant development coordinator. This position became available through a legislative initiative which enhanced infrastructure in the NDSU Agricultural Experiment Station. This position has proven to be an invaluable help to our faculty as they pursue grant funding by identifying new grant funding opportunities, assisting with paperwork associated with grant submission, and grant budget development.
ii. In 2011, the department officially opened the Beef Cattle Research Complex, a state-of-the-art facility which will allow our scientists to conduct a variety of beef cattle research. It is one of only four facilities like it in North America, and the only one at a Land Grant university. Research related to nutrition, reproduction, meat science, nutrient management, genetics, animal health, behavior, food safety, economics, as well as a variety of other disciplines related to beef cattle production can be conducted in this facility. Research conducted in this facility will ultimately improve profitability and sustainability of beef cattle production by helping producers to more precisely meet the nutrient needs of their livestock, thus resulting in increased production efficiency. A 10% improvement in feed efficiency for North Dakota’s beef cow herd would translate into a nearly $30 million dollar impact to North Dakota beef cattle producers.

c. Service/Outreach/Extension
   i. The Animal Sciences department believes strongly in the trifold mission of a land grant university (teaching, research, and Extension). As a result, we take our Extension and outreach efforts seriously. The department faculty has several highly visible Extension programming efforts, including BBQ Boot Camp, our signature Extension program. BBQ Boot Camp has been quite popular and has allowed us to reach consumer audiences that we have not typically reached with traditional programs. In 2011, the NDSU BBQ Boot Camp team traveled to 8 locations in North Dakota and provided educational programming to over 800 people. The department also hosts Moos, Ewes & More, an annual event designed to showcase the department and our relationship with people in the Fargo-Moorhead community. Last year, nearly 500 people attended the educational event. Both of these events involve a number of faculty, staff, and students who do not have formal Extension appointments.

C. Department/Unit/College Goals and Priorities for the Coming Year
   a. Overall Departmental Goals
      i. Improve visibility with students, stakeholders, and alumni
         1. Revamp the departmental web site
         2. Create an alumni newsletter
   b. Teaching
      i. Prepare for accreditation visit for the Veterinary Technology Program
      ii. Fill vacancy created by the promotion of Dr. David Buchanan
   c. Research
      i. Develop a more sustainable funding model for operation of the Advanced Imaging and Microscopy Laboratory
   d. Extension
      i. Develop more in-depth training opportunities for county Extension agents
Teaching Innovations – New Format

- Students in Equine Nutrition class completed a video project as a trial during the fall class. This project involved working with the media lab at ITS and proved to be both fun and educational for the students. (CH)
- The Equine Committee made changes to align with the new ANSC program and developed overall outcomes for the major.
- New Equine Genetics course was taught and will continue to be offered for the Equine Science students. (DB)
- Pursued opportunities in Equine Assisted Leadership training. Multiple meetings and one trial workshop were held in 2011. (CH/EB)
- Developed slide set for county agents, “Age and source verification programs.” (MB)
- Developed BBQ Boot Camp manual for attendees. (EPB/DN)
- Taught ANSC 300, Domestic Animal Behavior and Management, and ANSC 150, Animal Science Orientation for the first time Fall Semester 2011. (EB)
- Received Association of Veterinary Technician Educators Team Teaching Award (KB, TS, SO)
- Two online senior/grad student courses (ANSC 457/657 Genetic Improvement of Livestock) (ANSC 458/658 Evaluation and Use of Breeds of Livestock) were approved by the appropriate curriculum committees. ANSC 458/658 was taught in Fall 2011 and ANSC 457/657 will be taught Spring 2012. (DB)
- A new class titled “Equine Genetics” was taught as a 496 class in Fall 2011 and will be submitted for approval in 2012. (DB)
- Published and presented (at Midwest Section ASAS) “Teaching techniques for enhancing the learning experience of today’s students: engaging students.” (DB).
- Received USDA Higher Education Challenge Grant, “Teaching and Learning in the Animal Sciences — A National Effort to Challenge Old Assumptions and Break New Ground for the 21st Century.” Listed as Key Personnel. PI is Dr. Michel Wattiuix at the University of Wisconsin. (DB)
- Developed “The value of a bull,” spreadsheet for use in Extension talks. (DB)
- Began discussions about co-teaching a domestic animal endocrinology course (JSC, KV)
- Developed slide set for county agents, “Age and source verification programs.” (CD/GL)
- Developed slide set for Board of Animal Health, “Vaccine and antibiotic use impacts on production.” (CD)
- ANSC263, Introduction to Animal Biotechnology, was converted to ANSC455/655 and entitled Animal Biotechnology. (ATGB)
- Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. 6 lectures and 9 seminars. Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011. (ATGB)
- AS-1458, Utilizing Corn Residue in Beef Cattle Diets published. (GL)
The one-credit AI school was redesigned with input from Dennis Keuhne at Select Sires to better assign grades to students. (RM)

Member of the Food Safety group which works together to improve teaching of food safety classes and collaborate on research. (RM)

Developed an assessment plan for ANSC 340 and ANSC 755. Incorporated plan into both classes and wrote assessment results for departmental document. (KC)

Developed the NDSU Global Food Systems Study Abroad Program. The goal of the program is to give NDSU students in agriculture a global perspective by traveling to China and studying culture and agriculture systems. (CD/DN)

Completely started over with VETS 259 Small Animal Disease Course. Previously the course was taught by the students writing one multi-page document on a small amount of diseases and then teaching the other students about their particular disease by giving a 25 minute presentation on that disease. The course was very non-student friendly and the instructor had a very small part of the course. Refocused the course back to learning about multiple diseases through several different learning styles. (SO)

J.W. Schroeder
“Got Quality Milk” handout for producers and educators developed.

Taught courses at Dairy Cow College and State Dairy Convention.

Teresa Sonsthagen
- Designed a new task checklist for Clinical Practicum, to trac dates tasks were assigned and resulting score for tasks accomplished.

- Completely redid the VETS 358 Surgical Nursing and Anesthesiology lecture course and added more information to lab sessions.

- Helped to change the animal housing rooms to accommodate rescue animals for Fall and Spring Semester.

- Changed the VETS 492, Section 2 - VTNE review course implemented use of a workbook for chapter review, reduced number of class periods.

- Developed a model to simulate horse tails to teach student how to tail tie.


Charlie Stoltenow
The VTP entered into new Memorandums of Understanding (MOU) with local animal rescue organizations to enhance the teaching of the VTP students utilizing “real world” animals and increase the adoptive value of these animals.

<table>
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<th>Term</th>
<th>Prefix</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<th>% Responsibility</th>
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<td>General Microbiology</td>
<td>3</td>
<td>200</td>
<td>Guest</td>
<td>N/A</td>
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</table>
Kendall Swanson
The Introduction to Animal Nutrition Course is a new course (modified from the former Feeds and Feeding Course) that began in Fall 2011 with the new curriculum implemented for Animal Science courses. I also developed a graduate Energy Metabolism course which had not been offered for several years.

Sarah Wagner
Pharmacology Teaching Workshop planning committee, 2011-2012.
SERVICE

Eric Berg
National/International
Chair, Meat Science & Muscle Biology Program Committee, Midwest Section American Society of Animal Science

Paul Berg
National/International
Intercollegiate Meat Coaches Association of AMSA
RMC Planning Committee, 2011-2012

David Buchanan
National/International
ASAS Educator’s Tool Box moderator, 2011

Joel Caton
National/International
Organizing and planning working group, 3rd International Symposium on Selenium in Health and the Environment which will be held October 2014

Carl Dahlen
Regional
NCERA 87—Beef Cow Calf Nutrition and Management Committee, member
College
Search Committee for Animal Scientist at Central Grasslands Research Extension Center, member

Tate Eck
National/International
National Intercollegiate Rodeo Association – Member of the national board as the Great Plains Regional Faculty Director
Regional
Great Plains Region of the National Intercollegiate Rodeo Association, faculty director
Department
Equine Committee

Anna Grazul-Bilska
National/International
Society for the Study of Reproduction Membership Committee, member, 2008-present

Carrie Hammer
National/International
American Society of Animal Science, member, 2005-present
American Society of Animal Science, Horse Committee, member, 2009-present
American Society of Animal Science, Horse Committee, vice chair, 2010-2011
American Association of Equine Practitioners, member, 1998-present
AAEP State Equine Emergency Network Contact for North Dakota, 2006-present
American Veterinary Medical Association, member, 1998-present
Equine Science Society, member, 2005-present
National Association of Equine Affiliated Academics, member, 2009-present
National Western Stock Show Horse Classic Management Committee, 2008-present
State
North Dakota Veterinary Medical Association, member, 2006-present
North Dakota Animal ID Committee, member, 2006-present
North Dakota Quarter Horse Association, member, 2007-present
North Dakota Quarter Horse Association, Open Board member, 2007-present
North Dakota Horse Park Foundation Board, member, 2007-present

**Gregory Lardy**
National/International
NCBA Production Research Committee, member
USDA-NIFA Small and Medium Sized Farm Prosperity, panel member
Regional
NCR-SARE Technical Committee Grant Review Panel, member, 2006-present
State
SBARE Gas Tax Livestock Fund, ex-officio scientific advisor
Ex-Officio Advisor, North Dakota Lamb and Wool Producers Board.
North Dakota Natural Beef, LLC, Fargo, ND, advisor to Board of Governors
Home on the Range, Sentinel Butte, North Dakota, board member

**Kasey Maddock Carlin**
National/International
USDA Agricultural Marketing Service Beef Tenderness Predictive Technology Committee, member
American Society of Animal Science Meat Science and Muscle Biology Committee, member, 2008-2011
American Society of Animal Science Meat Science and Muscle Biology Committee, chair 2010-2011
American Meat Science Association Program Planning Committee, member, 2010
American Meat Science Association Scientific Committee, member, 2007-2010
Regional
NC1183: Molecular Mechanisms Regulating Skeletal Muscle Growth and Differentiation Committee

**Robert Maddock**
National/International
American Meat Science Association, Graduate Student Poster Committee, member and judge
Meat Judging Coaches Association, member
Regional
W2177 Increasing Competitiveness of U.S. Beef, member

**David Newman**
National/International
National Board Board Domestic Marketing Committee, member, 2009-present
National Pork Board Niche Pork Committee, member, 2008-present
United States Pork Center of Excellence Domain Committee, member, 2009-present
Regional
NCERA-89, Swine Production and Welfare, member
State
North Dakota Pork Council Board of Directors, advisor, 2008-present

Chung Park
National/International
Korean National Academy of Sciences for Agricultural Affairs, advisory member
Joint Food and Agriculture Organization and International Atomic Energy Agency Division of the United Nations Animal Production and Health Section, coordinator of a research project to study effective nutrition regimens for sustainable food production systems in developing and industrialized countries

Reid Redden
National/International
NCERA 190 Committee, member
Regional
Tri-State Meat Goat Committee, board member

Dale Redmer
University
New Faculty Mentoring Program
College
Advanced Imaging and Microscopy Core Laboratory, co-director

Lawrence Reynolds
National/International
Western Section American Society of Animal Science Animal Physiology Symposium Committee, 2009-2010
Pregnancy and Reproduction Special Emphasis Panel (ZRG1 EMNR-P (02)), NIH Internet Assisted Meeting (June 2010), chair
American Society of Animal Science Morrison Award Selection Committee, 2010

J.W. Schroeder
National/International
Innovation Center for U.S. Dairy – This group currently has as a top priority the goal of increasing feed efficiency of dairy cows and the reduction of enteric methane production. In January of 2009 the Innovation Center’s membership committed to a goal of reducing industry-wide greenhouse gas emissions by 25% by 2020. I am a member of this collaborative effort, joining the effort in 2010. In July we formed a strategic alliance with the U.S. Department of Agriculture has signed a memorandum of understanding with the Innovation Center to support its efforts to further the environmental and economic benefits to the industry.
Regional
Midwest Section American Dairy Science Association Graduate Poster Committee, vice chair, 2010
Midwest Section ADSA Graduate Poster Committee, judge of MS and PhD competition, 2010
Midwest Dairy Association American Dairy Council, NDSU representative, ex-officio advisor
North Dakota Dairy Products Promotion Commission/American Dairy Association, ex-officio advisor
Heart of America DHIA, university Extension representative, ex-officio advisor
State
North Dakota Dairy Coalition Board of Advisors and Dairy Retention and Expansion Committee
North Dakota State Dairy Show Association, open dairy show organization and manager
North Dakota State Dairy Judging Contest, co-coordinator, contest officiant
Milk Producers Association of North Dakota, Education Committee, convention coordinator, university representative and advisor

Charles Stoltenow
National/International
VET Net Mongolia NGO Advisory Board, provide direction and leadership for the education and instruction of veterinarians in Mongolia. This position fits directly into the stated AFRI goal of global food security.
Extension Disaster Education Network (EDEN) Community of Practice (COP), national program leader for Agrosecurity (As the leader I oversee the EDEN Agrosecurity COP which also functions as the eXtension COP.)
eXtension Animal Welfare Community of Practice (COP), member. This COP is working to provide guidance and guidelines for Extension nationwide in determining the research and extension needs with regard to livestock.
American Veterinary Medical Association, member
State
North Dakota Veterinary Medical Association Executive Board, member
North Dakota Board of Animal Health, consulting

Kendall Swanson
National
Canadian Society of Animal Science, eastern director and awards chair
Ontario Beef Symposium Committee, member, prior to coming to NDSU
University of Guelph Animal Care Committee, alternate member, prior to coming to NDSU

Tara Swanson
Regional
Intercollegiate Horse Show Association Standards and Ethics Committee

Kimberly Vonnahme
National/International
American Society of Animal Science Board, publications chair
USDA NIFA Reproduction Panel, member
Regional
Midwest Section ASAS, physiology chair

Sarah Wagner
National/International
AVMA Committee on Veterinary Technician Education and Activities, representing large animal practice, 2007-present
American Association of Bovine Practitioners Committee on Lameness, 2008-present
American College of Veterinary Clinical Pharmacology, exam committee member
American Association of Veterinary Pharmacology and Therapeutics, executive committee, 2010

Benjamin Williams
Regional
AK-SAR-BEN 4H Stock Show Executive Committee, State of North Dakota representative
Publications

Journal Articles


**Extension Bulletins (5)**


Books/Book Chapters


National/International Invited Presentations

Erika Berg
- National Association of Equine Affiliated Academics; Murfreesboro, TN; 5/30/11-5/31/11; presenter
- Equine Science Society; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Paul Berg
- Reciprocal Meats Conference, Manhattan, KS; 6/17/11-6/22/11; presenter

Joel Caton
- Florida Ruminant Nutrition Symposium, February 2011; invited speaker
- TEMA 14 (Trace Elements in Man and Animals); Enshi, China; 9/18/11-9/24/11; invited speaker
- 2nd Symposium on Selenium in Health and the Environment; 10/23/12-10/27/11; invited speaker/organizer

Anna Grazul-Bilska
- Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. 6 lectures and 9 seminars. Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011.

Carrie Hammer
- Equine Science Society; Murfreesboro, TN; 5/31/11-6/3/11; presenter
- National Association of Equine Affiliated Academics; Murfreesboro, TN; presenter, 5/30/11-5/31/11

David Newman
- National Pork Board Domestic Marketing Committee; Phoenix, AZ; 2/26/11-3/2/11; presenter
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; presenter
- World Pork Expo, Des Moines, IA; 6/8/11-6/10/11; presenter

Tara Swanson
- Equine Science Society Meetings; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Kimberly Vonnahme
- COST meetings; Fribourg, Switzerland; 8/20/11-8/27/11; invited presenter
Presentation (not sure if these are peer-reviewed or not)

Eric Berg
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; attendee/session chair/discussant
- Reciprocal Meats Conference; Manhattan, KS; 6/19/11-6/22/11; attendee/discussant

Erika Berg
- National Association of Equine Affiliated Academics; Murfreesboro, TN; 5/30/11-5/31/11; presenter
- Equine Science Society; Murfreesboro, TN; 6/1/11-6/3/11; presenter
- Professional Association of Therapeutic Horsemanship International (PATH Intl); Lexington, KY; 11/9/12-11/13/11; attendee/discussant

Paul Berg
- Reciprocal Meats Conference, Manhattan, KS; 6/17/11-6/22/11; presenter

Joel Caton
- Florida Ruminant Nutrition Symposium, February 2011; invited speaker and participant
- TEMA 14 (Trace Elements in Man and Animals); Enshi, China; 9/18/11-9/24/11; invited speaker and participant
- 2nd Symposium on Selenium in Health and the Environment; 10/23/12-10/27/11; invited speaker, organizer, and participant
- North Dakota Angus Association; Bismarck, ND; 11/18/11; invited speaker and participant

Anna Grazul-Bilska
- Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. 6 lectures and 9 seminars. Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011.

Carrie Hammer
- Equine Science Society; Murfreesboro, TN; 5/31/11-6/3/11; attendee/presenter
- National Association of Equine Affiliated Academics; Murfreesboro, TN; attendee/presenter, 5/30/11-5/31/11

David Newman
- National Pork Board Domestic Marketing Committee; Phoenix, AZ; 2/26/11-3/2/11; presenter
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; presenter
- NDSU Extension Service Spring Conference; Fargo, ND; 4/4/11; presenter, organizer
- World Pork Expo, Des Moines, IA; 6/8/11-6/10/11; presenter, attendee

Tara Swanson
- Equine Science Society Meetings; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Kimberly Vonnahme
• COST meetings; Fribourg, Switzerland; 8/20/11-8/27/11; invited presenter
Grants Funded in 2011 – 39 total funded, 2,182,943

**Berg Eric – 2 grants - $30,432**

Berg, E.P. Use of young female gilts as a biomedical model of human females to determine if consumption of beef from cattle administered estrogenic growth promotants results in premature puberty. Submitted to State Board of Agriculture Research and Education Requested $9,410. Granted $8,916. February 15, 2011. 1 year.

**Erika Berg – 2 grants - $55,000**

Berg, E.L. Course release grant for ANSC 496 for Fall 2012. NDSU FORWARD. $4,100. December, 2011. 1 semester.


**Paul Berg – 2 grants – $21,000**


**Paul, B.P.** North Dakota Beef Commission. Meat Judging Team competitive scholarship. $1,000.

**David Buchanan – 2 grants - $448,880**


Wattiux, M. and D. Buchanan. USDA Higher Education Challenge Grants. teaching and learning in the animal sciences — a national effort to challenge old assumptions and break new ground for the 21st century. Listed as Key Personnel. PI is Dr. Michel Wattiux at the University of Wisconsin. $149,476.

**Joel Caton – 2 grants - $155,638**

Yunusova, R., J. Caton, and D. Redmer. Estradiol-17 ß replacement therapy to counteract nutritionally induced intrauterine growth restriction: Impacts on placental and fetal growth and development outcomes. ND SBARE. April 2011, 1 Year. $5,638.

Carl Dahlen – 3 grants - $26,869.50
Dahlen, C.R. Eliminating forage from diets of pregnant beef cows on alternating days while feeding dried distillers grains plus solubles. $24,868.50. ND Corn Council. July 2011. 1 year.


Anna Grazul-Bilska – 1 grant - $1,500
Grazul-Bilska, A.T. ND EPSCoR, (PI), Acquisition of anti-vibration table to improve microscopy system for life sciences research and training. $1,500, November 2011, 1 year.

Kasey Maddock Carlin – 3 grants - $25,525


David Newman – 4 grants - $255,083


Chung Park – 1 grant - $54,290
Reid Redden – 1 grant - $6,198
Redden, R., C. Dahlen, and C. Jackson. Current concepts in ewe estrus synchronization. NDSU State Board of Agriculture Research Education. $6,198. March 1, 2011. 1 year.

Dale Redmer – 2 grants - $573,373


Larry Reynolds – 1 grant - $158,377
Reynolds LP (PI), Redmer DA (Co-PI), Wallace JM (Co-PI). PHS-NIH Grant R01HD045784-05S2, Administrative Supplement (Parent Grant, NICHD 45784-01-05 Nutrition, fetal growth, and placental angiogenesis); $158,377 total direct costs, August 2010-July 2012.

J.W. Schroeder – 3 grants – $215,435.70


Schroeder, J.W. Cow of the future. USDA Conservation Innovation Grant (CIG) Funding. Dairy Research Institute, JW Schroeder research committee member and contributor. $1,100,000 (~0.5%) = $55,000.

Kendall Swanson – 3 grants - $20,473
Swanson, K., M. Bauer, J. Caton, and C. Dahlen. Factors influencing feed intake and efficiency in backgrounding calves fed medium-quality hay with or without increasing levels of supplementation. North Dakota State Board of Agriculture and Education, Livestock Program. $11,100. 2011. 1 year.

Swanson, K. Equipment for sample processing at NDSU Beef Cattle Research Complex and development of in vitro approaches to examine feed starch quality in corn. North Dakota State Board of Agriculture and Education, Corn Program. $6,356. 2011. 1 year.
Swanson, K. Equipment for sample processing at NDSU Beef Cattle Research Complex. $3,017. 2011. 1 year.

Kim Vonnahme – 4 grants - $102,100
Vonnahme, K. Impacts of curcumin on progesterone catabolism. Contract with Provimi (now Cargill). $32,000 PI. 1 yr.

Vonnahme, K. Advance-Forward travel grant: $1,500 1 yr.

Vonnahme, K. Advance-Forward lab renovation grant: $16,600 1 yr.

Vonnahme, K. American Heart Association pre-doctoral grant (PI: Leslie A. Lekatz). Level of maternal protein impacts placental vasodilation: quantifying vasodilators in placental arteries. $52,000. 2 yrs.

Sarah Wagner – 3 grants - $32,770

Wagner, S.A. “Networking Management Software” Technology Fee Action Committee, North Dakota State University $1,950.

Wagner, S.A. “Training the Veterinary Technology Program faculty and staff in the use of Intravet practice management software” Provost’s Office, NDSU $2,400.
Goals

- Host national Reciprocal Meats Conference in Fargo in 2012 (EB, PB, KC, RM)
- Lead “Global Food Systems” study abroad course with a focus on the impact of China on the global agriculture markets (CD, DN)
- Develop new class – Growing and Finishing Cattle Management (MB)
- Continue to make progress in keeping the new beef cattle research facility full and data mining more automated (MB)
- Work with NDSU administrators on a legislative initiative which will include development of a new meat science slaughter and processing laboratory/facility and sensory science center (EPB)
- Develop equine facilitated mental health track for Therapeutic Horsemanship Minor and Certificate programs (EB)
- Solidify collaboration with NDSU College of Business Legacy Program for equine guided leadership and team building workshops (EB)
- Plan and execute short courses under the Ozbun grant (PB)
- Develop a concept of training current and future Extension personnel. This concept includes establishing fundamental skills required to be successful in the field of Extension education.
- Develop, administer, and analyze how current producers perceive the future direction of the beef industry, determine attitudes regarding methods of enhancing farm/ranch profitability, and determine how educational programs offered by NDSU can evolve to meet to meet needs of ND beef producers (CD)
- To further develop collaboration with Dr. Ariane Germeyer, Department of Gynecological Endocrinology and Reproductive Medicine, University of Heidelberg, Germany, to study vascularization of uterus and placenta in physiological and pathological conditions, and continue collaboration with other researchers (ATGB, JSC)
- Prepare ANSC 260 course for online section (CH)
- Finalize the Green Horse Training Project (CH)
- Complete new rules for Ranch Horse Pleasure and Keyhole Race (CH)
- Establish a long-term plan for the boot camp program with other agents and specialists (DN)
- Travel across North Dakota assessing former graduates’ experiences and gaining knowledge regarding what we can do to better prepare our graduates (SO)
- I would also like to observe/work for a few days in a few different practices to better maintain a current understanding of the medicine being practiced across the state (SO)
- Have VETS students interested in large animal medicine work more closely with the NDSU Main Station farms livestock when they are ill and/or need medical treatment to provide a better learning experience (SO)
- Continue to develop a bi-national collaborative research project (US - Korea) for cattle research (CP)
- Continue to develop a collaborative research project with the Grootfontein Agricultural Development Institute in South Africa for submission to the Bill and Melinda Gates Foundation Grant (CP)
- Complete updating the brochure for the campus-wide nutritional physiology program in order to recruit graduate students nationally (CP)
- Publish collaborative data with MSU on RFI in sheep (RR)
- Serve as the contact person for the development of a Sheep Community of Practice within eXtension (RR)
- Continue efforts with BioLaboratories to develop better pregnancy testing methods (RR)
- Develop monthly webinars that discuss timely topics that affect the sheep industry (RR)
• Develop mosaic microscopic images of many of the major tissues/organs of the reproductive system to post on Blackboard where a student can zoom in from a 50X to a 1000X view of the tissues (DAR)
• Develop one or two training workshops for the NDSU campus regarding techniques in microscopy, live cell imaging (DAR, ATGB, P Borowicz)
• Develop several angiogenic factor protein expression in histological sections, development of automated analysis of vascularity using laser scanning, and in situ hybridization of mRNA (DAR)
• Lead a curriculum review and then follow through on getting the curriculum changed; “design” the VETS program from the ground up, keep what is working, change what isn’t and renew the courses as we see fit (TS)
• Develop a peer review for the VETS program courses (TS)
• Increase the number of students we accept into the VETS program with the existing facility and staff.
I have ideas right now and would like to work with Dr. Lardy to evaluate the ANPC building for potential use by the program (TS)
• Investigate the feasibility of a Veterinary Technology Master’s degree program (TS)
• Continue Development of ANSC477 with intent to teach it spring of 2013 (CS)
• Develop, conduct and evaluate the nutrition signature program for the Extension Animal Production team and include hands-on training for agents and specialists (CS)
• Explore offering VETS440 Zoonoses as an elective for NDSU students (CS)
• Conduct a pilot project utilizing sentinel veterinary clinics to develop a real-time beef cattle pregnancy reporting system and eventual research project (CS)
• Plan and conduct a livestock welfare conference at NDSU (CS)
• Lead the translation of beef related Extension bulletins into Russian (CS) Develop plans for a KazSummit international conference to be held in Fargo
• Support the VTP becoming listed with the Fargo Pound to be able to pull animals from the pound if needed Develop an online reproduction course, sophomore level, for non-Animal Science majors, as well as to serve other schools in the state of ND (KV)
• Develop collaborations at the USDA-ARS-MARC in the area of nutrient delivery and heifer development (KV)
Extension/Camps, etc.

- BBQ Boot Camp – David Newman, Carl Dahlen
- Wish I Had a Horse Camp – Carrie Hammer, Marc Bauer, Tara Swanson, Carl Dahlen, Greg Lardy
- Fuzzy Wuzzy Horse Camp – Carrie Hammer, Marc Bauer, Tara Swanson
- North Dakota Extension Youth Conference – Horse Science – Carrie Hammer (planner)
- North Dakota State FFA Convention – J.W. Schroeder, Marc Bauer, Rob Maddock
- North Dakota State Dairy Convention – J.W. Schroeder
- North Dakota State Dairy Show – J.W. Schroeder
- North Dakota Winter Show Hippology Contest – Carrie Hammer (planner)
- Moos, Ewes, & Moore – Erika Berg, Tara Swanson
- Little International Livestock Exhibition – all faculty
- Red River Valley 4-H Horse Show – Erika Berg (judge)
- 4-H Horse Judging – Carrie Hammer and Tara Swanson
- Kazakhstian Cattle Group – David Buchanan (presenter)
- 2nd International Symposium on Selenium in Health and the Environment, Suzhou, China – Joel Caton (organization committee)
- North Dakota Cow-Calf Clinics, IVN Meetings – Carl Dahlen (planner/presenter)
- SW North Dakota Beef Days – Carl Dahlen (planner/presenter)
- Backgrounding Cattle: Costs, Prices, and Possibilities (IVN) – Carl Dahlen (planner/presenter)
- National Western 4-H Horse Bowl – Carrie Hammer (planner/judge)
- Tours of North Dakota Natural Beef for international/domestic visitors (11) – Rob Maddock
Teaching Innovations – New Format

- Students in Equine Nutrition class completed a video project as a trial during the fall class. This project involved working with the media lab at ITS and proved to be both fun and educational for the students. (CH)
- The Equine Committee made changes to align with the new ANSC program and developed overall outcomes for the major.
- New Equine Genetics course was taught and will continue to be offered for the Equine Science students. (DB)
- Pursued opportunities in Equine Assisted Leadership training. Multiple meetings and one trial workshop were held in 2011. (CH/EB)
- Developed slide set for county agents, “Age and source verification programs.” (MB)
- Developed BBQ Boot Camp manual for attendees. (EPB/DN)
- Taught ANSC 300, Domestic Animal Behavior and Management, and ANSC 150, Animal Science Orientation for the first time Fall Semester 2011. (EB)
- Received Association of Veterinary Technician Educators Team Teaching Award (KB, TS, SO)
- Two online senior/grad student courses (ANSC 457/657 Genetic Improvement of Livestock) (ANSC 458/658 Evaluation and Use of Breeds of Livestock) were approved by the appropriate curriculum committees. ANSC 458/658 was taught in Fall 2011 and ANSC 457/657 will be taught Spring 2012. (DB)
- A new class titled “Equine Genetics” was taught as a 496 class in Fall 2011 and will be submitted for approval in 2012. (DB)
- Published and presented (at Midwest Section ASAS) “Teaching techniques for enhancing the learning experience of today’s students: engaging students.” (DB).
- Received USDA Higher Education Challenge Grant, “Teaching and Learning in the Animal Sciences — A National Effort to Challenge Old Assumptions and Break New Ground for the 21st Century.” Listed as Key Personnel. PI is Dr. Michel Wattiaux at the University of Wisconsin. (DB)
- Developed “The value of a bull,” spreadsheet for use in Extension talks. (DB)
- Began discussions about co-teaching a domestic animal endocrinology course (JSC, KV)
- Developed slide set for county agents, “Age and source verification programs.” (CD/GL)
- Developed slide set for Board of Animal Health, “Vaccine and antibiotic use impacts on production.” (CD)
- ANSC263, Introduction to Animal Biotechnology, was converted to ANSC455/655 and entitled Animal Biotechnology. (ATGB)
- Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. 6 lectures and 9 seminars. Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011. (ATGB)
- AS-1458, Utilizing Corn Residue in Beef Cattle Diets published. (GL)
• The one-credit AI school was redesigned with input from Dennis Keuhne at Select Sires to better assign grades to students. (RM)
• Member of the Food Safety group which works together to improve teaching of food safety classes and collaborate on research. (RM)
• Developed an assessment plan for ANSC 340 and ANSC 755. Incorporated plan into both classes and wrote assessment results for departmental document. (KC)
• Developed the NDSU Global Food Systems Study Abroad Program. The goal of the program is to give NDSU students in agriculture a global perspective by traveling to China and studying culture and agriculture systems. (CD/DN)
• Completely started over with VETS 259 Small Animal Disease Course. Previously the course was taught by the students writing one multi-page document on a small amount of diseases and then teaching the other students about their particular disease by giving a 25 minute presentation on that disease. The course was very non-student friendly and the instructor had a very small part of the course. Refocused the course back to learning about multiple diseases through several different learning styles. (SO)

**J.W. Schroeder**
“Got Quality Milk” handout for producers and educators developed.

Taught courses at Dairy Cow College and State Dairy Convention.

**Teresa Sonsthagen**
• Designed a new task checklist for Clinical Practicum, to tract dates tasks were assigned and resulting score for tasks accomplished.

• Completely redid the VETS 358 Surgical Nursing and Anesthesiology lecture course and added more information to lab sessions.

• Helped to change the animal housing rooms to accommodate rescue animals for Fall and Spring Semester.

• Changed the VETS 492, Section 2 - VTNE review course implemented use of a workbook for chapter review, reduced number of class periods.

• Developed a model to simulate horse tails to teach student how to tail tie.

• AVTE/Elsevier Award for Teaching Excellence, 2011 - $500 award.

**Charlie Stoltenow**
The VTP entered into new Memorandums of Understanding (MOU) with local animal rescue organizations to enhance the teaching of the VTP students utilizing “real world” animals and increase the adoptive value of these animals.

<table>
<thead>
<tr>
<th>Term</th>
<th>Prefix</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Students</th>
<th>% Responsibility</th>
<th>Course Rating</th>
<th>Instructor Rating</th>
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<td>MICRO</td>
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<td>General Microbiology</td>
<td>3</td>
<td>200</td>
<td>Guest</td>
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Kendall Swanson
The Introduction to Animal Nutrition Course is a new course (modified from the former Feeds and Feeding Course) that began in Fall 2011 with the new curriculum implemented for Animal Science courses. I also developed a graduate Energy Metabolism course which had not been offered for several years.

Sarah Wagner
Pharmacology Teaching Workshop planning committee, 2011-2012.
Publications

Journal Articles


Extension Bulletins (5)


Books/Book Chapters


National/International Invited Presentations

Erika Berg
- National Association of Equine Affiliated Academics; Murfreesboro, TN; 5/30/11-5/31/11; presenter
- Equine Science Society; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Paul Berg
- Reciprocal Meats Conference, Manhattan, KS; 6/17/11-6/22/11; presenter

Joel Caton
- Florida Ruminant Nutrition Symposium, February 2011; invited speaker
- TEMA 14 (Trace Elements in Man and Animals); Enshi, China; 9/18/11-9/24/11; invited speaker
- 2nd Symposium on Selenium in Health and the Environment; 10/23/12-10/27/11; invited speaker/organizer
- Anna Grazul-Bilska
  - Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. **6 lectures and 9 seminars.** Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011.

Carrie Hammer
- Equine Science Society; Murfreesboro, TN; 5/31/11-6/3/11; presenter
- National Association of Equine Affiliated Academics; Murfreesboro, TN; presenter, 5/30/11-5/31/11

David Newman
- National Pork Board Domestic Marketing Committee; Phoenix, AZ; 2/26/11-3/2/11; presenter
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; presenter
- World Pork Expo, Des Moines, IA; 6/8/11-6/10/11; presenter

Tara Swanson
- Equine Science Society Meetings; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Kimberly Vonnahme
- COST meetings; Fribourg, Switzerland; 8/20/11-8/27/11; invited presenter
Presentation (not sure if these are peer-reviewed or not)

Eric Berg
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; attendee/session chair/discussant
- Reciprocal Meats Conference; Manhattan, KS; 6/19/11-6/22/11; attendee/discussant

Erika Berg
- National Association of Equine Affiliated Academics; Murfreesboro, TN; 5/30/11-5/31/11; presenter
- Equine Science Society; Murfreesboro, TN; 6/1/11-6/3/11; presenter
- Professional Association of Therapeutic Horsemanship International (PATH Intl); Lexington, KY; 11/9/12-11/13/11; attendee/discussant

Paul Berg
- Reciprocal Meats Conference, Manhattan, KS; 6/17/11-6/22/11; presenter

Joel Caton
- Florida Ruminant Nutrition Symposium, February 2011; invited speaker and participant
- TEMA 14 (Trace Elements in Man and Animals); Enshi, China; 9/18/11-9/24/11; invited speaker and participant
- 2nd Symposium on Selenium in Health and the Environment; 10/23/12-10/27/11; invited speaker, organizer, and participant
- North Dakota Angus Association; Bismarck, ND; 11/18/11; invited speaker and participant

Anna Grazul-Bilska
- Invited lecturer for the program “Expanding and improving educational offers addressed to persons outside the university and increasing the quality of teaching and competence of the academic community” carried out under the Operational Program “Human Capital” co-financed by the European Union under the European Social Fund. 6 lectures and 9 seminars. Faculty of Biology, University of Warmia and Mazury in Olsztyn, Poland; May-June, 2011.

Carrie Hammer
- Equine Science Society; Murfreesboro, TN; 5/31/11-6/3/11; attendee/presenter
- National Association of Equine Affiliated Academics; Murfreesboro, TN; attendee/presenter, 5/30/11-5/31/11

David Newman
- National Pork Board Domestic Marketing Committee; Phoenix, AZ; 2/26/11-3/2/11; presenter
- Midwest Section American Society of Animal Science; Des Moines, IA; 3/14/11-3/16/11; presenter
- NDSU Extension Service Spring Conference; Fargo, ND; 4/4/11; presenter, organizer
- World Pork Expo, Des Moines, IA; 6/8/11-6/10/11; presenter, attendee

Tara Swanson
- Equine Science Society Meetings; Murfreesboro, TN; 6/1/11-6/3/11; presenter

Kimberly Vonnahme
• COST meetings; Fribourg, Switzerland; 8/20/11-8/27/11; invited presenter
Grants Funded in 2011 – 39 total funded, 2,182,943

**Berg Eric – 2 grants - $30,432**  

Berg, E.P. Use of young female gilts as a biomedical model of human females to determine if consumption of beef from cattle administered estrogenic growth promotants results in premature puberty. Submitted to State Board of Agriculture Research and Education Requested $9,410. Granted $8,916. February 15, 2011. 1 year.

**Erika Berg – 2 grants - $55,000**  
Berg, E.L. Course release grant for ANSC 496 for Fall 2012. NDSU FORWARD. $4,100. December, 2011. 1 semester.


**Paul Berg – 2 grants – $21,000**  

**Paul, B.P.** North Dakota Beef Commission. Meat Judging Team competitive scholarship. $1,000.

**David Buchanan – 2 grants - $448,880**  

Wattiux, M. and D. Buchanan. USDA Higher Education Challenge Grants. teaching and learning in the animal sciences — a national effort to challenge old assumptions and break new ground for the 21st century. Listed as Key Personnel. PI is Dr. Michel Wattiux at the University of Wisconsin. $149,476.

**Joel Caton – 2 grants - $155,638**  
Yunusova, R., J. Caton, and D. Redmer. Estradiol-17 ß replacement therapy to counteract nutritionally induced intrauterine growth restriction: Impacts on placental and fetal growth and development outcomes. ND SBARE. April 2011, 1 Year. $5,638.

Carl Dahlen – 3 grants - $26,869.50
Dahlen, C.R. Eliminating forage from diets of pregnant beef cows on alternating days while feeding dried distillers grains plus solubles. $24,868.50. ND Corn Council. July 2011. 1 year.


Anna Grazul-Bilska – 1 grant - $1,500
Grazul-Bilska, A.T. ND EPSCoR, (PI), Acquisition of anti-vibration table to improve microscopy system for life sciences research and training. $1,500, November 2011, 1 year.

Kasey Maddock Carlin – 3 grants - $25,525


David Newman – 4 grants - $255,083


Chung Park – 1 grant - $54,290
Reid Redden – 1 grant - $6,198
Redden, R., C. Dahlen, and C. Jackson. Current concepts in ewe estrus synchronization. NDSU State Board of Agriculture Research Education. $6,198. March 1, 2011. 1 year.

Dale Redmer – 2 grants - $573,373


Larry Reynolds – 1 grant - $158,377
Reynolds LP (PI), Redmer DA (Co-PI), Wallace JM (Co-PI). PHS-NIH Grant R01HD045784-05S2, Administrative Supplement (Parent Grant, NICHD 45784-01-05 Nutrition, fetal growth, and placental angiogenesis); $158,377 total direct costs, August 2010-July 2012.

J.W. Schroeder – 3 grants – $215,435.70


Schroeder, J.W. Cow of the future. USDA Conservation Innovation Grant (CIG) Funding. Dairy Research Institute, JW Schroeder research committee member and contributor. $1,100,000 (~0.5%) = $55,000.

Kendall Swanson – 3 grants - $20,473
Swanson, K., M. Bauer, J. Caton, and C. Dahlen. Factors influencing feed intake and efficiency in backgrounding calves fed medium-quality hay with or without increasing levels of supplementation. North Dakota State Board of Agriculture and Education, Livestock Program. $11,100. 2011. 1 year.

Swanson, K. Equipment for sample processing at NDSU Beef Cattle Research Complex and development of in vitro approaches to examine feed starch quality in corn. North Dakota State Board of Agriculture and Education, Corn Program. $6,356. 2011. 1 year.
Swanson, K. Equipment for sample processing at NDSU Beef Cattle Research Complex. $3,017. 2011. 1 year.

**Kim Vonnahme – 4 grants - $102,100**

Vonnahme, K. Impacts of curcumin on progesterone catabolism. Contract with Provimi (now Cargill). $32,000 PI. 1 yr.

Vonnahme, K. Advance-Forward travel grant: $1,500 1 yr.

Vonnahme, K. Advance-Forward lab renovation grant: $16,600 1 yr.

Vonnahme, K. American Heart Association pre-doctoral grant (PI: Leslie A. Lekatz). Level of maternal protein impacts placental vasodilation: quantifying vasodilators in placental arteries. $52,000. 2 yrs.

**Sarah Wagner – 3 grants - $32,770**


Wagner, S.A. “Networking Management Software” Technology Fee Action Committee, North Dakota State University $1,950.

Wagner, S.A. “Training the Veterinary Technology Program faculty and staff in the use of Intravet practice management software” Provost’s Office, NDSU $2,400.
SERVICE

Eric Berg
National/International
Chair, Meat Science & Muscle Biology Program Committee, Midwest Section American Society of Animal Science

Paul Berg
National/International
Intercollegiate Meat Coaches Association of AMSA
RMC Planning Committee, 2011-2012

David Buchanan
National/International
ASAS Educator’s Tool Box moderator, 2011

Joel Caton
National/International
Organizing and planning working group, 3rd International Symposium on Selenium in Health and the Environment which will be held October 2014

Carl Dahlen
Regional
NCERA 87—Beef Cow Calf Nutrition and Management Committee, member
College
Search Committee for Animal Scientist at Central Grasslands Research Extension Center, member

Tate Eck
National/International
National Intercollegiate Rodeo Association – Member of the national board as the Great Plains Regional Faculty Director
Regional
Great Plains Region of the National Intercollegiate Rodeo Association, faculty director
Department
Equine Committee

Anna Grazul-Bilska
National/International
Society for the Study of Reproduction Membership Committee, member, 2008-present

Carrie Hammer
National/International
American Society of Animal Science, member, 2005-present
American Society of Animal Science, Horse Committee, member, 2009-present
American Society of Animal Science, Horse Committee, vice chair, 2010-2011
American Association of Equine Practitioners, member, 1998-present
AAEP State Equine Emergency Network Contact for North Dakota, 2006-present
American Veterinary Medical Association, member, 1998-present
Equine Science Society, member, 2005-present  
National Association of Equine Affiliated Academics, member, 2009-present  
National Western Stock Show Horse Classic Management Committee, 2008-present  
National Association of Equine Affiliated Academics, member, 2009‐present  
National Western Stock Show Horse Classic Management Committee, 2008‐present  
North Dakota Veterinary Medical Association, member, 2006‐present  
North Dakota Animal ID Committee, member, 2006‐present  
North Dakota Quarter Horse Association, member, 2007‐present  
North Dakota Quarter Horse Association, Open Board member, 2007‐present  
North Dakota Horse Park Foundation Board, member, 2007‐present  
Gregory Lardy  
National/International  
NCBA Production Research Committee, member  
USDA‐NIFA Small and Medium Sized Farm Prosperity, panel member  
Regional  
NCR‐SARE Technical Committee Grant Review Panel, member, 2006‐present  
State  
SBARE Gas Tax Livestock Fund, ex‐officio scientific advisor  
Ex‐Officio Advisor, North Dakota Lamb and Wool Producers Board.  
North Dakota Natural Beef, LLC, Fargo, ND, advisor to Board of Governors  
Home on the Range, Sentinel Butte, North Dakota, board member  
Kasey Maddock Carlin  
National/International  
USDA Agricultural Marketing Service Beef Tenderness Predictive Technology Committee, member  
American Society of Animal Science Meat Science and Muscle Biology Committee, member, 2008‐2011  
American Society of Animal Science Meat Science and Muscle Biology Committee, chair 2010‐2011  
American Meat Science Association Program Planning Committee, member, 2010  
American Meat Science Association Scientific Committee, member, 2007‐2010  
Regional  
NC 1183: Molecular Mechanisms Regulating Skeletal Muscle Growth and Differentiation Committee  
Robert Maddock  
National/International  
American Meat Science Association, Graduate Student Poster Committee, member and judge  
Meat Judging Coaches Association, member  
Regional  
W2177 Increasing Competitiveness of U.S. Beef, member  
David Newman  
National/International  
National Board Board Domestic Marketing Committee, member, 2009‐present  
National Pork Board Niche Pork Committee, member, 2008‐present  
United States Pork Center of Excellence Domain Committee, member, 2009‐present  
Regional  
NCERA‐89, Swine Production and Welfare, member  
State
North Dakota Pork Council Board of Directors, advisor, 2008-present

Chung Park
National/International
Korean National Academy of Sciences for Agricultural Affairs, advisory member
Joint Food and Agriculture Organization and International Atomic Energy Agency Division of the United Nations Animal Production and Health Section, coordinator of a research project to study effective nutrition regimens for sustainable food production systems in developing and industrialized countries

Reid Redden
National/International
NCERA 190 Committee, member
Regional
Tri-State Meat Goat Committee, board member

Dale Redmer
University
New Faculty Mentoring Program
College
Advanced Imaging and Microscopy Core Laboratory, co-director

Lawrence Reynolds
National/International
Western Section American Society of Animal Science Animal Physiology Symposium Committee, 2009-2010
Pregnancy and Reproduction Special Emphasis Panel (ZRG1 EMNR-P (02)), NIH Internet Assisted Meeting (June 2010), chair
American Society of Animal Science Morrison Award Selection Committee, 2010

J.W. Schroeder
National/International
Innovation Center for U.S. Dairy – This group currently has as a top priority the goal of increasing feed efficiency of dairy cows and the reduction of enteric methane production. In January of 2009 the Innovation Center’s membership committed to a goal of reducing industry-wide greenhouse gas emissions by 25% by 2020. I am a member of this collaborative effort, joining the effort in 2010. In July were formed a strategic alliance with the U.S. Department of Agriculture has signed a memorandum of understanding with the Innovation Center to support its efforts to further the environmental and economic benefits to the industry.
Regional
Midwest Section American Dairy Science Association Graduate Poster Committee, vice chair, 2010
Midwest Section ADSA Graduate Poster Committee, judge of MS and PhD competition, 2010
Midwest Dairy Association American Dairy Council, NDSU representative, ex-officio advisor
North Dakota Dairy Products Promotion Commission/American Dairy Association, ex-officio advisor
Heart of America DHIA, university Extension representative, ex-officio advisor
State
North Dakota Dairy Coalition Board of Advisors and Dairy Retention and Expansion Committee
North Dakota State Dairy Show Association, open dairy show organization and manager
North Dakota State Dairy Judging Contest, co-coordinator, contest officiant
Milk Producers Association of North Dakota, Education Committee, convention coordinator, university representative and advisor

Charles Stoltenow
National/International
VET Net Mongolia NGO Advisory Board, provide direction and leadership for the education and instruction of veterinarians in Mongolia. This position fits directly into the stated AFRI goal of global food security.
Extension Disaster Education Network (EDEN) Community of Practice (COP), national program leader for Agrosecurity (As the leader I oversee the EDEN Agrosecurity COP which also functions as the eXtension COP.)
eXtension Animal Welfare Community of Practice (COP), member. This COP is working to provide guidance and guidelines for Extension nationwide in determining the research and extension needs with regard to livestock.
American Veterinary Medical Association, member
State
North Dakota Veterinary Medical Association Executive Board, member
North Dakota Board of Animal Health, consulting

Kendall Swanson
National
Canadian Society of Animal Science, eastern director and awards chair
Ontario Beef Symposium Committee, member, prior to coming to NDSU
University of Guelph Animal Care Committee, alternate member, prior to coming to NDSU

Tara Swanson
Regional
Intercollegiate Horse Show Association Standards and Ethics Committee

Kimberly Vonnahme
National/International
American Society of Animal Science Board, publications chair
USDA NIFA Reproduction Panel, member
Regional
Midwest Section ASAS, physiology chair

Sarah Wagner
National/International
AVMA Committee on Veterinary Technician Education and Activities, representing large animal practice, 2007-present
American Association of Bovine Practitioners Committee on Lameness, 2008-present
American College of Veterinary Clinical Pharmacology, exam committee member
American Association of Veterinary Pharmacology and Therapeutics, executive committee, 2010

Benjamin Williams
Regional
AK-SAR-BEN 4H Stock Show Executive Committee, State of North Dakota representative
Extension/Camps, etc.

• BBQ Boot Camp – David Newman, Carl Dahlen
• Wish I Had a Horse Camp – Carrie Hammer, Marc Bauer, Tara Swanson, Carl Dahlen, Greg Lardy
• Fuzzy Wuzzy Horse Camp – Carrie Hammer, Marc Bauer, Tara Swanson
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• National Western 4-H Horse Bowl – Carrie Hammer (planner/judge)
• Tours of North Dakota Natural Beef for international/domestic visitors (11) – Rob Maddock
Goals

- Host national Reciprocal Meats Conference in Fargo in 2012 (EB, PB, KC, RM)
- Lead “Global Food Systems” study abroad course with a focus on the impact of China on the global agriculture markets (CD, DN)
- Develop new class – Growing and Finishing Cattle Management (MB)
- Continue to make progress in keeping the new beef cattle research facility full and data mining more automated (MB)
- Work with NDSU administrators on a legislative initiative which will include development of a new meat science slaughter and processing laboratory/facility and sensory science center (EPB)
- Develop equine facilitated mental health track for Therapeutic Horsemanship Minor and Certificate programs (EB)
- Solidify collaboration with NDSU College of Business Legacy Program for equine guided leadership and team building workshops (EB)
- Plan and execute short courses under the Ozbun grant (PB)
- Develop a concept of training current and future Extension personnel. This concept includes establishing fundamental skills required to be successful in the field of Extension education.
- Develop, administer, and analyze how current producers perceive the future direction of the beef industry, determine attitudes regarding methods of enhancing farm/ranch profitability, and determine how educational programs offered by NDSU can evolve to meet to meet needs of ND beef producers (CD)
- To further develop collaboration with Dr. Ariane Germeyer, Department of Gynecological Endocrinology and Reproductive Medicine, University of Heidelberg, Germany, to study vascularization of uterus and placenta in physiological and pathological conditions, and continue collaboration with other researchers (ATGB, JSC)
- Prepare ANSC 260 course for online section (CH)
- Finalize the Green Horse Training Project (CH)
- Complete new rules for Ranch Horse Pleasure and Keyhole Race (CH)
- Establish a long-term plan for the boot camp program with other agents and specialists (DN)
- Travel across North Dakota assessing former graduates’ experiences and gaining knowledge regarding what we can do to better prepare our graduates (SO)
- I would also like to observe/work for a few days in a few different practices to better maintain a current understanding of the medicine being practiced across the state (SO)
- Have VETS students interested in large animal medicine work more closely with the NDSU Main Station farms livestock when they are ill and/or need medical treatment to provide a better learning experience (SO)
- Continue to develop a bi-national collaborative research project (US - Korea) for cattle research (CP)
- Continue to develop a collaborative research project with the Grootfontein Agricultural Development Institute in South Africa for submission to the Bill and Melinda Gates Foundation Grant (CP)
- Complete updating the brochure for the campus-wide nutritional physiology program in order to recruit graduate students nationally (CP)
- Publish collaborative data with MSU on RFI in sheep (RR)
- Serve as the contact person for the development of a Sheep Community of Practice within eXtension (RR)
- Continue efforts with BioLaboratories to develop better pregnancy testing methods (RR)
- Develop monthly webinars that discuss timely topics that affect the sheep industry (RR)
• Develop mosaic microscopic images of many of the major tissues/organs of the reproductive system to post on Blackboard where a student can zoom in from a 50X to a 1000X view of the tissues (DAR)
• Develop one or two training workshops for the NDSU campus regarding techniques in microscopy, live cell imaging (DAR, ATGB, P Borowicz)
• Develop several angiogenic factor protein expression in histological sections, development of automated analysis of vascularity using laser scanning, and in situ hybridization of mRNA (DAR)
• Lead a curriculum review and then follow through on getting the curriculum changed; “design” the VETS program from the ground up, keep what is working, change what isn’t and renew the courses as we see fit (TS)
• Develop a peer review for the VETS program courses (TS)
• Increase the number of students we accept into the VETS program with the existing facility and staff. I have ideas right now and would like to work with Dr. Lardy to evaluate the ANPC building for potential use by the program (TS)
• Investigate the feasibility of a Veterinary Technology Master’s degree program (TS)
• Continue Development of ANSC477 with intent to teach it spring of 2013 (CS)
• Develop, conduct and evaluate the nutrition signature program for the Extension Animal Production team and include hands-on training for agents and specialists (CS)
• Explore offering VETS440 Zoonoses as an elective for NDSU students (CS)
• Conduct a pilot project utilizing sentinel veterinary clinics to develop a real-time beef cattle pregnancy reporting system and eventual research project (CS)
• Plan and conduct a livestock welfare conference at NDSU (CS)
• Lead the translation of beef related Extension bulletins into Russian (CS) Develop plans for a KazSummit international conference to be held in Fargo
• Support the VTP becoming listed with the Fargo Pound to be able to pull animals from the pound if needed Develop an online reproduction course, sophomore level, for non-Animal Science majors, as well as to serve other schools in the state of ND (KV)
• Develop collaborations at the USDA-ARS-MARC in the area of nutrient delivery and heifer development (KV)