

# Newsletter

Volume 4, Issue 1

Spring 2009



# **Greetings from the Department!**

This past year has been another good year for the Department. The number and quality of our graduates has been sustained, the department has benefited from generous donors, and my colleagues have been successful in grantsmanship and publication. It is my pleasure to update you on a few items, but I also call your attention to our annual report for 2008 which is posted on our website, www.ansci.wisc.edu.

Our Meat Science and Poultry Research laboratories continue to be important long-term construction goals for this department. Just recently, the Department has learned that the CALS Facilities Committee evaluated eight important and needy capital projects within the college. One of these projects was ours, the combined project involving design and construction of new meat science and poultry research laboratories. Of the eight projects considered, our project received the number one rating. This is great news and a necessary first step in the long journey that capital projects must travel. CALS Dean, Molly Jahn, will consider this committee's recommendation in deciding which CALS projects are advanced to the Campus Planning Committee. The Campus Planning Committee then makes recommendations to UW System and the Board of Regents, who in turn make

recommendations to the State Building Commission. Indeed, it is a long journey. As you will read later in the article authored by Dr. Jim Claus, we hope to have the new meat lab and poultry research lab included in the 2011-13 biennial budget. A key component of each construction initiative will be recruitment of non-state funds equal to 50% of the total design and construction cost. Aiding us in these design and development endeavors will be the Poultry Science and Meat Science Advisory Committees. Members of these committees have accepted the Department's invitation to evaluate our planning and design efforts and advise us in advancing and achieving these construction goals. Hopefully, we will have much good news to report to you in the future.

Our colleague, Daniel Gianola, won a prestigious award. Dan received the Humboldt Research Award from the Alexander von Humboldt Foundation in Bonn, Germany. This international award was granted in recognition of his entire body of work which has included new theories and mathematical insights that have had significant impact in statistical genetics. In recognition of his receipt of this award, the Departments of Dairy Science and Animal Sciences hosted a symposium in Dan's honor during May 4-6.

You will read later in this newsletter about Dr. Amin Fadl, who joined this department in April 2008. Amin comes to us from Tuskegee University and holds a research and instruction appointment. Amin's animal health expertise is a very nice addition to the portfolio of this department.

For the first time, we have included in this newsletter a listing of some accounts held at the UW Foundation which benefit students and programs in this department. I wish to call to your attention the Julie Busby Memorial Fund. The earnings from this fund are used to cover expenses by graduate students as they travel to scientific meetings to present their research results. Julie was a deeply appreciated secretary in this department who typed manuscripts and theses for our students. She realized the importance of networking for our young professionals and the very challenging nature of finding money to cover travel expenses, hence the purpose of this fund. I encourage your support for this fund, which helps our students at this very important juncture in their careers.

Amid all of the comings and goings of folks in this department, we would still love to hear from you. So, do give us a call or email us a message.

Kind regards, Dan Schaefer, Professor and Chair

#### **About the Editor**



Hello! My name is Dana Erickson and I am a sophomore majoring in Animal Sciences. With the semester coming to an end, I have started to reflect on my experiences throughout the year. First of all, editing the Animal Sciences Newsletter has allowed me to meet and appreciate groups that are committed to student and department success: Staff, Alumni and the Foundation. As an undergraduate, my eyes have been opened to the variety of possible careers related to animal agriculture. Last fall, I took AS 305--Introduction to Meat Science and Technology where we not only learned about meat animals and the meat industry but also food safety. This spring, I was involved in the Equine Reproduction class where one of the highlights was participating in the foaling of one of the campus mares, Reno. This is what makes the University of Wisconsin -Madison a special place--its people and diverse offerings. My plans for the summer include traveling to France through the CALS Study Abroad Program and returning home to work for Wisconsin River Meats and to ride my horses.

### Meat Science Lab Update

This past fall semester was an interesting and busy time for the faculty and instructors in the Meat Science and Muscle Biology
Laboratory. Along with other instructional responsibilities, AS 305 (Introduction to Meat Science and Technology) had to be moved to the fall semester to accommodate a major refrigeration repair project. The pilot plant facilities in the Meat Lab were turned over to the contractors on January 19, 2009. These facilities should be back on line by the end of this August.

Through support from the Dean's office, UW's Facilities Planning and Management, and the State, funding was secured to gut out and install modular coolers and a freezer on the second floor, as well as a cooler module in the processed meats area on the first floor. The scope of the work was not sufficient to also refrigerate the carcass fabrication room or the meat processing pilot plant, although some air conditioning will be included. Nevertheless, this project will be sufficient to maintain the functionality of the teaching, research, and extension missions in the current laboratory until a new, modern facility is built.

In terms of progress toward a new facility, planning has been moving along briskly. The Department has finalized a one-page document that highlights the mission and scope of a new facility that we propose to name the Meat Industry Innovation Center. In addition to having one of the most advanced harvest facilities in the country, this building will have a signature feature that has garnered much excitement on, as well as off, campus.

The key feature will be an isolatable biosafety level-2 meat processing pilot plant designed and fully equipped to simulate industry practices and plant conditions. This unique pilot plant will address basic to applied scientific questions pertinent to meat manufacturing companies, equipment manufacturers, supplier entities, and UW researchers. It will be possible to investigate antimicrobial interventions ranging from those applied to early postharvest meat to those involved with the manufacture of consumer-ready fresh and processed products. This pilot plant will be a site where small, medium, and large meat companies can obtain answers to pressing food safety questions without introducing pathogenic microorganisms into their facilities in order to

prove process safety as required to meet regulatory food safety standards.

UW has identified the site for the new building, which will be on the north side of Linden Drive near the Poultry Research Laboratory. At this point, the single most critical step in moving the project forward will be receiving a pledge from a major lead donor. The UW Foundation has been working closely with the Department in this fund raising effort. The University has slotted the new Meat Industry Innovation Center to be constructed during the 2011-2013 biennium, if such funding is secured. The Department has also recently formed a Meat Science Advisory committee consisting of key industry leaders from across Wisconsin. The first meeting will be held in early summer. With the committee's input and vision, we will build upon this university's rich reputation as having one of the most recognized and accomplished meat science programs in the country.

Dr. James R. Claus University of Wisconsin-Madison Meat Science & Muscle Biology Laboratory



Interior walls in the carcass cooler on the second floor. Both freezers were removed in preparation for installing a large carcass cooler module and a freezer along the east wall.



Progress toward decommissioning the meat curing cooler on the first floor and converting it into a dry storage room.



# University of Wisconsin **Department of Animal Sciences**

# **How Can You Support Animal Sciences?**

#### Julie Busby Memorial Fund (Fund# 12561088)

This fund will provide earnings that will give the Department's graduate students vital assistance in preparing their research and subsequently traveling to

#### Department of Animal Sciences Fund (Fund# 1256444)

The Chair of the Department uses fund earnings to respond to unforeseen opportunities and challenges in its teaching, research and outreach missions.

# Pope Sheep Research Fund (Fund# 12562330)

Established by Emeritus Professor Arthur Pope, the Pope Sheep Research Fund enhances the ability of the Department to perform sheep-related research and outreach activities.

# Packerland Packing Company Beef Program Enrichment Fund (Fund# 12561952)

Earnings from this fund will be used to strengthen the economic and environmental sustainability of beef production with an emphasis on the Wisconsin cattle industry.

#### MJ Wylie Animal Sciences Education and Outreach Fund (Fund# 12563553)

Projects such as new technology development and training, animal behavior and ethics training, and extension and outreach programming needs will be met by this fund named in honor of Dr. M. J. Wylie, former State Equine Extension Specialist in this department.

# Meat Science Learning Opportunity Endowment (Fund# 12561862)

Undergraduate students are the benefactors of this endowment fund. This fund supports learning experiences such as internships, field travel, undergraduate research projects and meat animal evaluation team participation.

#### Milt L. Sunde Poultry Science Scholarship (Fund# 12040228)

This fund was established in 1987, upon the retirement of Milt Sunde, Emeritus Professor of Poultry Science. It provides a scholarship to an undergraduate student studying and interested in Poultry Science. The scholarship is awarded based on leadership and academic performance.

#### The Department of Animal Sciences

I/We would like to join other alumni and	l friends in suppo	rting the Department	of Animal Scien	ices.
I/We wish to make a single gift. Enclose	ed is my/our cont	ribution of \$		
I/We wish to pledge \$	each year beginning in		(year).	
I/We wish to have my/our contribution so	upport the			
	(Fund/ Scholarship/ Endowment)			
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Please charge my gift of \$	to my:	Master Card	Visa	Am. Ex.
Card Number/	//	/	Expiration Date	
Signature				

Please make your gift payable to the UW Foundation and mail it to: University of Wisconsin Foundation

> US Bank Lockbox PO Pox 78807 Milwaukee, WI 53278-0807 uwf@uwfoundation.wisc.edu

## Thank You 2008 Donors!

We are thankful to have generous donors like you joining together to ensure the future success of our department and University. In these challenging financial times, private support has become increasingly important in assuring the affordability of a college education, helping with the retention of valued faculty members, introducing new programs and fostering innovative research.

Gifts like yours are at work daily and have a tremendous impact on the lives of students, faculty and staff.

Listed below are those who contributed to departmental funds in 2008.

#### A. B. Chapman Lecture Fund

Dr. Robert A. Bellows Ms. Ida Bass Kirsch Dr. Max F. Rothschild Mrs. Denise J. Rothschild Dr. Lorraine Rutledge Dr. Jackie Rutledge

#### Bray-Woodbury Wis. Distinguished Graduate Fellowship

Mr. Rudolph A. Erickson Dr. Robert A. Merkel

#### Benevenga- Animal Nutrition Student Fund

Dr. Gary L. Case Mrs. Carole Lynn Case

# Endocrinology and Reproductive Physiology/ Animal Sciences

Prof. Fredrick Stormshak Mrs. Alice Mary Stormshak Dr. Todd A. Winters

#### Julie Busby Memorial Fund

Dr. Lorraine Rutledge Dr. Jackie Rutledge

#### Milt Sunde Scholarship Fund

Dr. Milton L. Sunde Prof. Roger A. Sunde Ms. Susan A. Sunde

#### **Poultry Research Institute Fund**

Dr. Wayne L. Bacon Mr. Gerald J. Carey Jr. Dr. Albert Victor Holm Ms. Gail P. Holm Ns. Allegra K. Manacher

#### Department of Animal Sciences Community Fund

Prof. Daniel M. Schaefer Mrs. Gail Schaefer

#### Department of Animal Sciences Fund

Dr. Donald D. Barnhart Dr. Dennis R. Campion Mr. Kent W. Carnahan Ms. Mary E. Exner Ms. Jamie J. Fisher Dr. Fields C. Gunsett Ms. Carol Gunsett Dr. James F. Hentges Jr. Mrs. Amanda J. Hoffman-Kiesow Mr. James O. Huber Dr. Travis C. Kuhlka Mrs. Deborah B. Leverenz Dr. Robert Lewis Mr. Daniel J. McFarlin Prof. Robert M. Nakamura Ms. Karen Ann Pater Principal Financial Group Foundation Reproduction Resources Dr Laura A Stein Mr. Mark C. Thieleke Mr. Raymond S. Wruk Ms. Judi Orsi Zangs Mr. Melvin A. Zech

#### Stem Cell Research for Developmental Disorders Fund

Mr. Robert B. Bruce Mrs. Nancy M. Bruce

### Walter C. and Mabel J. Topel Animal Sciences Scholarship

Dr. David G. Topel

#### Dennis R. Buege Meat Science Endowment Student Assistantship

American Foods Group Ms. Catherine L. Buege Mr. Theodore J. Fahey Prof. Marion L. Greaser Ms. Patricia N. Harrington Ms. Virginia E. Hazlett Ms. Jane M. Hillstrom Mr. David A. Nicholson Dr. John D. Prange Ms. Joyce A. Prange Mr. Bruce Russell Seemann Ms. Carol A. Seemann Mr. Russell Skewes Smithfield Beef Group Ms. Sarah B. Urben Ms. Dawn M. Loomis Vierck Mr. Ronald Weiss Ms. Margaret R. Weiss

#### Meat Science and Muscle Biology Program Fund

Dr. Charles E. Carpenter Ms. Nancy M. Carpenter Prof. Arthur J. Siedler

#### Meat Science Learning Opportunity Endowment

Mr. Michael J. Marr Mr. Douglas A. Marshall

# Nutritional and Health Benefits of Phytochemicals in Food

AIBMR Inc POM Wonderful LLC

# **Congratulations Graduates of 2008!**



Eui-Soo Kim
Ph.D. Animal Sciences
Major Professor:
Kirkpatrick

**Thesis:** Mapping twinning rate QTL in cattle using linkage disequilibrium.



### Nanye Long

M.S. Animal Sciences, Certificate in Bioinformatics at the Graduate Level Major Professor: Gianola

**Thesis:** Machine learning classification procedure for selecting SNPs in genomic selection with an application to mortality in broilers.



#### Marcelo Ramos

M.S. Animal Sciences
Major Professor:
Lehmkuhler

**Thesis:** The use of industrialized fertilizer or interseeded legume as a source of nitrogen for cool season pastures grazed by stocker cattle.



### Kurt Vogel

M.S. Animal Sciences Major Professor: Claus

**Thesis:** Water withdrawal and the well-being and carcass characteristics of Holstein slaughter cows.



## Kilby Willenburg

Ph.D. Animal Sciences Major Professor: Parrish

**Thesis:** Characterization of Boar Sperm Nuclei using Fourier Harmonic Analysis

#### SPRING 2008 – B.S. ANIMAL SCIENCES

Ashley Driver, Natural Sciences
Melissa Garfoot, Natural Sciences
Marta Grinde, Agricultural Sciences
Otto Kraus, International Ag. & Nat. Res.
Rachel Leisemann, Natural Sciences
Zachary Menne, Natural Sciences
Amanda Risler, Natural Sciences
Jason Russell, Agricultural Sciences
Buffy Sacia, Agricultural Sciences
Kyle Stehlik, Natural Sciences
Mindy Wesley, Natural Sciences
Sharon Worzalla, Natural Sciences
Jamie Zimmerman, Natural Sciences

#### <u>Summer 2008 – B.S. Animal Sciences</u>

Nicole Brown, Natural Sciences
Fong Dak Chau, Agricultural Sciences
Courtney Kreuser, Agricultural Sciences
Melissa Lutz, Agricultural Sciences
Kathryn Pfeiffer, Agricultural Sciences
Andrea Schoep, International Ag. & Nat. Res.
Laura Utschig-Samuels, Natural Sciences

#### SUMMER 2008 – B.S. POULTRY SCIENCE

Meaghan Loy, Agricultural Sciences

#### FALL 2008 – B.S. ANIMAL SCIENCES

Nicole Adamczyk, Agricultural Sciences Shauna Carter, Agricultural Sciences Daniel Laufenberg, Agricultural Sciences Danielle Leverich, Natural Sciences Michael Neuenschwander, Natural Sciences Andrew Peterson, Agricultural Sciences Mary Thicke, Agricultural Sciences

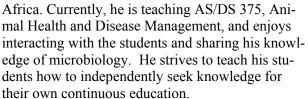
#### FALL 2008 – B.S. POULTRY SCIENCE

Marie Zanton, Natural Sciences

### **New Faculty**

#### Dr. Amin Fadl

Dr. Amin Fadl is the newest faculty member in the Animal Sciences Department. He is originally from Sudan, which is located in the northeast corner of



Dr. Fadl is establishing his laboratory in which he will research food pathogens, with emphasis on Salmonella. His specific interest lies in control of disease in animals, which is an important step in controlling disease in humans.

Amin became interested in microbiology through the influence of teachers and how they displayed the materials to him. He is also fascinated by how pathogens infect animals.

In his free time, Dr. Fadl enjoys reading a diverse array of subjects including literature, science, and current local, national, and global news.



For the very first time, the Walter C. and Mabel J. Topel Animal Sciences Scholarship will be awarded in 2009 to an undergraduate student in the Department of Animal Sciences. This scholarship was recently established by David Topel and his wife, Jay-lin Jane-Topel, to honor the memory of David's parents, Walter and Mabel. The one-thousand dollar scholarship will be awarded to students who otherwise could not afford an education without some financial help and have a minimum grade point average of 2.5. Dr. Topel is a native of Lake Mills, WI and Emeritus Dean of the College of Agriculture at Iowa State University.