

The Official Newsletter



DEPARTMENT OF
ANIMAL & AVIAN SCIENCES

winter



2012



New Teaching Laboratory

The new Teaching Laboratory was put into use this Spring semester. This new classroom will be used for Anatomy, Physiology, and Reproduction laboratories. Constructed in the original wing, on the ground floor of the building, the new lab is larger, with better ventilation, better lighting and more storage space than the location of the old Anatomy Laboratory on the fourth floor.

This project converted some of the worst and least utilized space in the department into a modern classroom laboratory for our students. The new Teaching Laboratory can accommodate up to 32 students for each Physiology section and 30 students for each Anatomy section. The laboratory is equipped with new microscopes, new computers and new data collection equipment. For Anatomy classes, the standard classroom benches will be swapped out with dissection tables. There is an adjacent preparation room and a built-in, ventilated cooler for storage of anatomical specimens.

The department hosted an Open House on January 24, 2012, where designers, college stakeholders, students, staff and faculty celebrated its completion. Funding for the new Teaching Laboratory came from the Department of Animal and Avian Sciences, the College of Agriculture and Natural Resource, the Provost, and the Campus Facilities Council.

Faculty & Staff News



Welcome Dr. Bhanu Telugu

Dr. Bhanu Telugu joined the faculty in January, 2012 as an Assistant Professor with a joint appointment between the Department of Animal and Avian Sciences and the Beltsville Agricultural Research Center (BARC), Agricultural Research Service (ARS), US Department of Agriculture (USDA). Dr. Telugu's research interests in reproductive biology and regenerative medicine, involve dissecting early events leading up to placental morphogenesis/pathophysiology in humans as well as developing novel embryonic and induced pluripotent stem cell lines from pigs. Before coming to Maryland, he was a Research Scientist and a Postdoctoral Fellow in Stem Cell Biology at the University of Missouri, working with **Dr. R. Michael Roberts**, 2008-2011. Dr. Telugu received his Ph.D. in Reproductive Biology from the University of Missouri, Columbia in 2008. He received

his Bachelor of Veterinary Science (and Animal Husbandry) from S.V. Veterinary University in India, in 2001. Dr. Telugu's research laboratory will be at the Beltsville Agricultural Research Center (BARC) in the University of Maryland-BARC Animal Biotechnology facility.

New Zebrafish Facility

Dr. Iqbal Hamza finished a sabbatical in **Dr. Paul Liu's** lab at the NIH, learning zebrafish research with specific emphasis on hematopoiesis. Since then he has established a state-of-the-art zebrafish facility in our department animal wing complete with reverse osmosis water, mechanical and biological filtration, ultraviolet sterilizers and automated water exchanges. The plans were completed in March 2011, construction started in August, and the facility was assembled in December. The zebrafish facility can handle up to 10,000 adult fish and is equipped with sensors that monitor water quality, respond in an emergency via a paging system, and can be operated remotely. The facility will also be equipped with instruments to manipulate zebrafish embryos for generation of transgenic fish.



Faculty & Staff News

Dr. Zhengguo Xiao



Dr. Xiao Awarded Grant

Dr. Zhengguo Xiao and co-PI **Dr. Catherine Fenselau** have been awarded an NIH R21 grant for \$418,000 to study “Protein Signature in Memory CTL Differentiation” over the next two years (02/2012-14). Dr. Xiao explained, “The goal of our work is to elucidate the mechanisms by which the memory cytotoxic T cell immune response is developed. We plan to identify critical nuclear proteins involved in the regulation of the immune response. Such knowledge will provide a foundation for the development of effective vaccines against HIV and cancer.”

Symposium on iPSC at ANSC

The first “Symposium on induced Pluripotent Stem Cells (iPSC) in Biotechnology and Biomedicine” sponsored by the Department of Animal and Avian Sciences and the ARS-USDA, Beltsville was held here on January 12, 2012. The speakers included: **Dr. Paul Verma** (South Australian Research and Development Institute) “Harnessing Pluripotency for Biotech and Biomedical applications;” **Dr. Bhanu Telugu** (University of Maryland/USDA) “Emerging Prospects and Challenges of Stem Cell Research in Swine;” and **Dr. Jizhong Zou** (John Hopkins University) “Generation and Gene-targeting of human iPSC.” The symposium was organized by **Dr. Carol Keefer**. She explained, “A combination of events, Dr. Verma’s approaching visit to my lab and the recent addition of Dr. Telugu to the ANSC faculty, stimulated the idea of holding a symposium. Bringing in Dr. Zou provided the human health aspect. It was an excellent opportunity to hear from researchers working on the cutting edge of iPSC technology in both domestic animals and humans.”

Victoria Lake



Victoria Lake

The Department welcomes **Victoria Lake** to the newly created position of Program Management Specialist for Academic Programs. She will be supporting both the undergraduate and graduate programs. Victoria is an alum, class of '11 and we welcome her to our staff!

Dr. Beverly Teter



Dr. Bev Teter featured on the 700 Club

Dr. Beverly Teter, research associate in **Dr. Rich Erdman’s** lab, appeared on the television show “The 700 Club” in a segment about coconut oil and Alzheimer’s disease. The show aired on January 5, 2012 on the ABC Family Channel and on the Trinity Broadcasting Network. A video of the segment can be viewed at http://www.cbn.com/media/player/index.aspx?s=/mp4/LJO190v1_WS

Student News

Congrats to our Summer and Fall 2011 graduates!

Undergraduates

Natalie A. Abato
Allison R. Bundock
Hoi Ki Chan
Adam Nicholas Cook
Ashley C. Davison
Ashley Dawn Freeman
Timothy Harold Johnson
Emily Laura Koemeter-Cox
Wanxin Liu
Danielle Nicole Nase
Helen Hwang Paik



Malini Mukherjee



Jennifer Strykowski

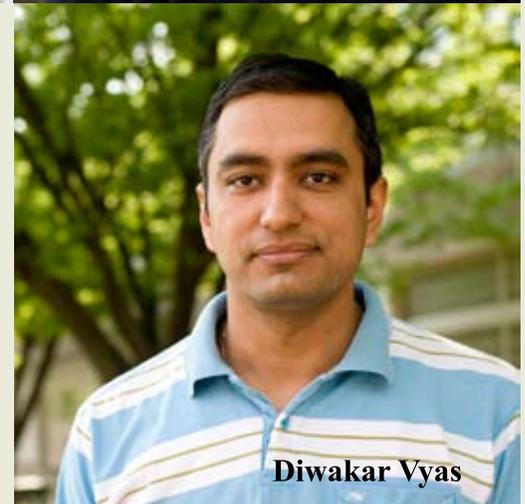
Graduates

Jennifer Strykowski, from **Dr. Edward Orlando's** laboratory, received her MS degree in December. She is now working as an Aquatic Specialist III for Charles River at the NIH, helping to manage their zebrafish facilities.

Diwakar Vyas, from **Dr. Richard Erdman's** laboratory, received his Ph.D. in December. He is now in a postdoctoral position at Agriculture Canada in Alberta, working with **Dr. Karen Beauchemin**.

Malini Mukherjee received her Ph.D in December. Dr. Mukherjee was a student in the Molecular and Cell Biology program and worked in the laboratory of **Dr. Tom Porter**.

Jyoti Narayana received her Ph.D. in August and was also a student in the Molecular and Cell Biology program in the laboratory of **Dr. Tom Porter**. She has joined Shriners Hospital for Children in Portland, Oregon as a mentored scientist in **Dr. William Horton's** research laboratory.



Diwakar Vyas



Jyoti Narayana

Student News

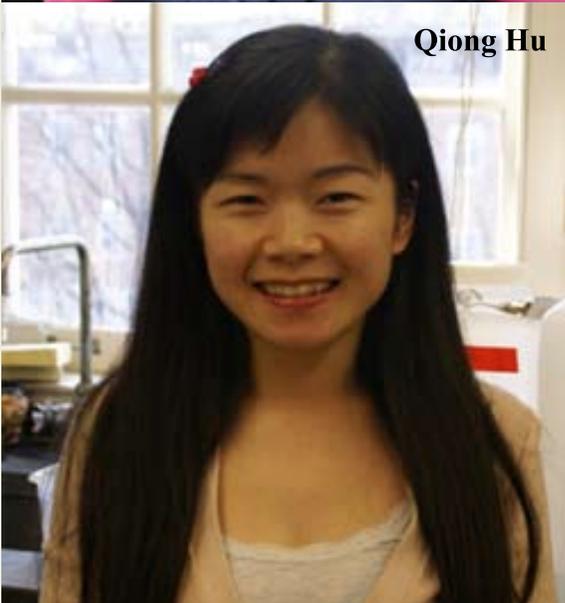
Ashley Franklin



Cosmos Award

Graduate student **Ashley Franklin** has received a 2012 Cosmos Foundation Young Scholar Award. Her topic is “Genotypic determination of the putative NF- κ B binding site within the promoter region of the SAA1 gene locus in cheetah (*Acinonyx jubatus*).” The program provides grants to graduate students at local Washington-area universities to meet unexpected and otherwise unsupported aspects of their research. Ms. Franklin previously received the same distinction in 2008.

Qiong Hu



Travel Award

Qiong Hu graduate student in the laboratory of **Dr. Brian Bequette** was awarded a travel award sponsored by **Professor Emeritus, Dr. Joseph Soares**. She will receive \$850 toward the reimbursement of travel expenses to present her abstract titled “Metabolomic profiling of the liver in developing chicken embryos and post-hatch chicks reveals unique metabolic differences” at the ADSA-ASAS joint annual meeting to be held in Phoenix, AZ, July 15-19, 2012.

Student News

Students compete in Maine

Undergrad **Mac Campbell** reported that students of the University of Maryland's Block and Bridle Club competed at the 2012 North East Student Affiliate (NESA) Block and Bridle Animal Science Competition hosted by the University of Maine on February 18, 2012. Block and Bridle clubs from across the northeast sent students to compete in a trifecta of animal science events including livestock judging, quiz bowl, and agricultural related oral presentations.

The University of Maryland sent three teams consisting of four members each. The University placed 9th Overall in the competition, with each team winning their first round of quiz bowl, and students placing exceptionally well in livestock judging. Students also did extremely well in their oral presentations reviewing the topics of Boar Taint, Equine Euthanasia, and Foot and Mouth Disease in Beef Cattle. **Mac Campbell** presented a research paper on Equine Polysaccharide Storage Myopathy.

Current President of the UMD Block and Bridle Club, **Anna McGucken** received the Outstanding Senior Award. This award is given to one senior student in the competition for their excellence in academic achievement, leadership and work experience. **Deedra Suchting** a freshman at the University, placed 2nd individually in livestock judging.

Maryland Teams C, A, and B placed 12th, 23rd, and 28th respectively, out of 47 teams at the competition. The other teams hailed from Pennsylvania State University, University of Rhode Island, University of New Hampshire, University of Delaware, Delaware Valley College, Rutgers University, University of Connecticut, University of Vermont, and University of Massachusetts. Team C placed 18th in quiz bowl, and Team A placed 26th in paper presentations.



Anna McGucken and Deedra Suchting

This year's judging classes included Holstein dairy cows, Holstein dairy heifers, Standardbred mares, Babydoll Southdown Sheep, market steers, and Toggenburg does. The Maryland teams would like to thank their sponsors for participation in funding the trip as well as the local farms that helped with preparation for the competition. For further results or sponsorship, please contact **Kiera Finucane** at kieraf@umd.edu or call 301-405-1392.

Extension News

Pictured: Matt Morris, Emily Snyder, Audrey Ervin, Deedra Suchting, Kelly Brower, Emily Beall, Mac Campbell, Rob Rock, Becky Uphold, Rebecca Stoecker, Anna McGucken, Hanum Wensil-Strow



ANSC Farm Friends

Dr. Amy Burk, with the help of staff members **Jennifer Reynolds** and **Libby Dufour**, secured a grant from the Maryland Agricultural Council to purchase horse, chicken, and cow costumes to use to promote the department. The mascots are called our ANSC Farm Friends and pictured here are two of them at their first events. **Dean Wei** met our Chicken at the Mid Atlantic Small

Flock Poultry Expo on Feb 4, 2012. This was the first such expo ever held at the Carroll County Agricultural Center in Westminster and about 400 people attended. At the Maryland Horse World Expo held January 20-22, 2012 in Timonium,



Terpretariat and fans at the Maryland Horse World Expo



The ANSC Chicken and Dean Wei

Dr. Burk found “Kids and adults were swarming to get a photo with Terpretariat. He was a huge hit and really helped to draw attention to the University of Maryland and to our Equine Studies booth.”

Extension News

Maryland Dairy Convention Celebrates 6th Annual Event

The University of Maryland Extension (UME) has worked with the Maryland Dairy Industry Association (MDIA) and the Maryland Dairy Shrine since 2007 to hold an annual statewide premier dairy event. The organizations sponsor a high quality program for the dairy youth, dairy producers, allied industry, representatives of the Maryland Department of Agriculture, and other interested parties. The Convention was held on February 25 at the Frederick County Fairgrounds.

As with any major event, many people are involved in planning and orchestrating the activities of the convention. During the day, over 30 youth and 90 adults participated in the educational programs and industry trade show. The youth program was chaired by **Kiera Finucane**, Coordinator of Dairy and Beef Extension Programs in the Department of Animal and Avian Sciences, and included **Lindsey Vansandt**, DVM and graduate student in the department, providing a hands-on exercise with reproductive tracts to demonstrate the cow's anatomy and physiology. **Gail Yeiser**, Assistant to the Dean for Alumni & External Relations, presented an introduction to The National Dairy FARM Program: Farmers Assuring Responsible Management Program. Kiera also included feed identification, equipment identification, silage evaluation, DHI record analysis, a general dairy knowledge exam, and an invited talk and demonstration on hoof health and lameness for the youth by **Dr. Ernest Hovingh** from Penn State.

This year's adult educational program consisted of seven invited speakers with **Dr. Paul Rapnicki**, University of Minnesota Clinical Professor in the College of Veterinary Medicine, giving the keynote talk on Dairy Cattle Stockmanship. The program committee was chaired by **Dr. Bob Peters** and included UME faculty members **Stan Fultz** and **Mike Bell**, along with Kiera Finucane and the Board of Directors of MDIA. **Laurie Savage**, Secretary/Treasurer of MDIA, coordinated the trade show of agri-business and industry sponsors. President **Scott Youse** of Ridgely conducted the business meeting. Stan Fultz moderated the slide presentation for the Dairies of Distinction and **Joe Stowers**, member of the MDIA Boyd Cook Memorial Scholarship Committee, awarded the three scholarships. Contestants for both of these awards were evaluated by committees with department, UME, and industry members. This year's winners of the Dairy of Distinction were the **Doody Family** of Tulip Pond Farm in Union Bridge and the **Shafer Family** of Shafdon Farm in Jefferson. Each family received a Dairy of Distinction sign from MDIA and a framed farm photo taken by **Edwin Remsberg** and given by Lancaster Farming newspaper. Scholarship winners were **Carissa Doody** (\$1,000), **Jason Zimmerman** (\$500), and **Tracy Forsythe** (\$500).

Extension News

The Maryland Dairy Shrine Banquet was the most popular event of the day with 260 attending the evening banquet and program. This year's Master of Ceremonies was **Mike Creek** of Hagerstown. Dairy Shrine sponsored a silent auction with proceeds going to support the dairy and breed organizations in Maryland. The \$500 Dairy Shrine scholarship winners were **Sarah Davis** (Carroll County), **Andrea Steyer** (Garrett County), and **Jason Zimmerman** (Montgomery County). **Carissa Doody** (Frederick County) was awarded the \$500 Mid-Maryland Dairy Veterinarians Scholarship. **Ginger and Robert Knutsen** of Lovdal Farm in Rising Sun, and **Shirley and Clayton Smith** of OCS Dairy in Jefferson received the esteemed Guest of Honor Award, a lifetime recognition of contributions made to the Maryland Dairy Industry. A photo display of the winners of this award, dating back to 1967, is housed at the University of Maryland Western Maryland Research and Education Center in Keedysville

Photo: Alternate Upper Chesapeake Dairy Princess Josie Dallam, Carole Doody, Cathleen Doody, Carissa Doody, Dave Doody, Carroll County Dairy Princess Amber Lippy, Ruth Shafer, Teresa Shafer with Atley Shafer, Denny Shafer, Dee Shafer with Aubree Shafer, Brent Shafer and Alternate Maryland Dairy Princess Danielle Anderson.



Dairy Judging Team News

The University of Maryland Dairy Cattle Judging Team had a strong showing when competing this fall in the Intercollegiate All-American Dairy Judging Contest at Harrisburg, PA, as well as at the National Intercollegiate Dairy Judging Contest at the World Dairy Expo in Madison, WI. The three-member team of **Mac Campbell**, **Brittany Mills**, and **Hanum Wensil-Strow**, all participated in the Dairy Cattle Evaluation class offered at the University this past spring taught by Dairy Extension Coordinator **Kiera Finucane**. The one credit course allowed students to gain more dairy experience beyond the classroom, while they worked on critical thinking, oral presentation, and animal evaluation skills, all which are extremely important in dairy judging. For all three students, this was their first experience with dairy judging. With Ms. Finucane as their coach, the students traveled to Harrisburg, September 17-22, 2011, to compete in their first dairy judging contest. The team placed 10th in Guernseys, 11th in Jerseys, and 12th in Brown Swiss. Brittany Mills placed 21st overall in Guernseys, and Hanum Wensil Strow placed 11th overall in Jerseys.

Extension News

In October 4-8, 2011, the team traveled to Madison, Wisconsin, to compete in their second and final intercollegiate dairy judging contest. Out of 21 teams, the students place 16th in Ayrshires, 10th in Guernseys, 15th in Holsteins, 15th in Jerseys, and 19th in Red and Whites. The team also placed 18th overall in Oral Reasons.

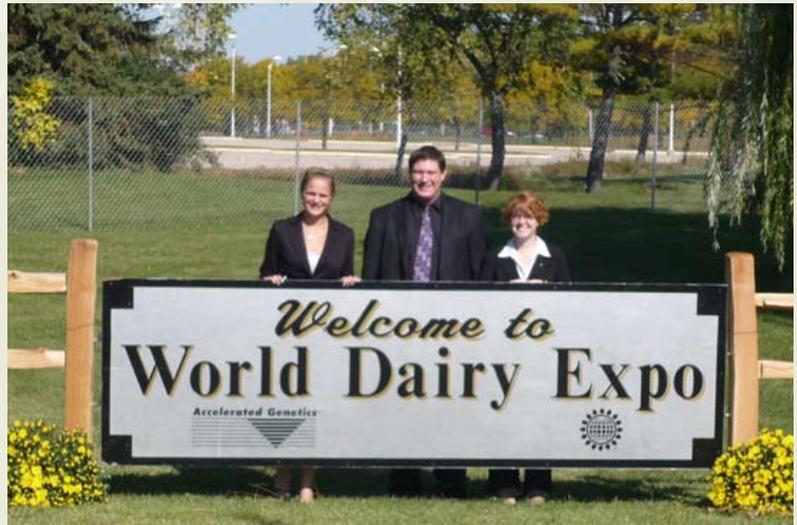
Dairy Challenge

Students from the University of Maryland Animal and Avian Science Department attended the 9th annual Dairy Challenge held October 27-29, 2011, in Watertown, New York. The team of students consisted of **Mac Campbell**, **Audrey Ervin**, **Erica Greenwald**, and **Angela Thomas**, all of whom were students in the ANSC242: Dairy Cattle Management class offered this fall in the Department.

Accompanied by their professor, **Dr. Richard Erdman**, Dairy Cattle Nutrition Specialist, the students made the 8 hour trip to participate in the Dairy Challenge. Unlike normal university judging competitions, the students at this completion formed teams with students from different universities. They were given access to financials, management protocols, and the farm's production records of the participating dairy farms in order to prepare for the farm visits. The Dairy Challenge Teams were split into 3 groups, with each group visiting and analyzing a different farm. Students visited the farms, asked questions of the employees, and then prepared a presentation detailing farm management decisions to show judges and the farm owners. The report consisted of a thorough analysis including recommendations for nutrition, reproduction, milking procedures, animal health, housing and financial management.

“Dairy Challenge was certainly something every dairy student should participate in. It made one look closer at management styles and farm records to maximize profit, cow wellness, and efficient farm practices. This can be directly used after college, when faced with these issues while working in the dairy industry,” stated university student Mac Campbell.

Maryland finished strong, with one platinum, two gold, and a silver finish. The students would like to thank the volunteers as well as the sponsors who helped put on the excellent program.



Hanum Wensil-Strow, Mac Campbell and Brittany Mills

Extension News

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Horse World Expo

The University of Maryland had a strong presence at the 2012 Maryland Horse World Expo held January 20-22, 2012 in Timonium, MD. Some 380 people attended the University Seminars, gaining valuable information from university and industry specialists to help them better care for their horses. Our University of Maryland Equine Studies booth was able to share information on our Animal Sciences programs and Extension learning opportunities thanks to the help of **Dr. Brian Bequette, Dr. Amy Burk, Libby Dufour, Jennifer Reynolds** and students **Melinda Gilmer, Ashley Davison, Kelly Brower, and Mallan Willis**.

Mid Atlantic Small Flock Poultry Expo

The first ever Mid Atlantic Poultry Expo was held February 4, 2012 at the Carroll County Ag. Center. Over 400 people attended to learn about various aspects of small flock care. The event was coordinated by staff member, **Jennifer Reynolds**. University Specialists and Extension faculty including **Dr. Nick Zimmermann, Dave Myers, Jessica Renshaw, Jennifer Rhodes, Chuck Schuster, Jeff Semler, Dr. Nathaniel Tablante, and Dr. Jennifer Timmons** presented 18 sessions on topics ranging from breeds and general care of layers, to health and disease, to regulations, marketing and processing of eggs and meat. This was a great opportunity to reach a growing segment of the Poultry industry in Maryland and get valuable information out to those small flock owners.

Alumni News

Dr. Mulumebet Worku Honored

Dr. Mulumebet “Millie” Worku, alum of the department, was selected as the Senior Researcher of the Year at North Carolina A&T State University. The award was presented on March 15, 2011 at their Honors Convocation. Dr. Worku holds a Ph.D. and Master’s degree from the University of Maryland, Animal Sciences. She was co-advised by **Dr. Robert Peters** and **Dr. Max Paape** for her M.S. degree received in 1989 and by Dr. Paape for her Ph.D. received in 1993.

Dr. Worku’s Bachelor of Science degree is from the University of Alemaya in Ethiopia, also in Animal Sciences. She began at North Carolina A&T in 1999 as a Visiting Professor and Instructor in Microbiology. She previously served as a researcher with the U.S. Department of Agriculture and the Food and Drug Administration and was an International Atomic Energy Agency research fellow at the University of Glasgow in Scotland.

Now, as a tenured professor of Animal Sciences at NCAT, Dr. Worku’s current research studies the immune systems of cattle, goats, and sheep to help reduce disease, improve food safety, and promote animal and public health. Dr. Worku has been a principal investigator or co-PI on 29 successful grant proposals at NCAT, worth a total of more than \$7.5 million. Dr. Worku was named the 2007 Teacher of the Year in the School of Agriculture and Environmental Science. She has taught courses in agricultural genetics, bioinformatics, dairy cattle production, microbiology, and techniques in biotechnology. She developed the school’s course in bioinformatics and genome analysis.



Dr. Millie Worku

Dr. Mary Beck, new Department Head at MSU



Dr. Mary Beck

Department alum, **Dr. Mary Beck** was selected last fall to become the new Department Head of Poultry Science at Mississippi State University. Dr. Beck received her M.S. in 1976 and Ph.D. in 1980 here at the University of Maryland., studying poultry physiology with **Dr. Wayne Kuenzel**. Before joining MSU she was a professor at Clemson University’s College of Agriculture, Forestry and Life Sciences from 2007-2011 and held various leadership positions there, including chair of the Department of Animal and Veterinary Sciences. Prior to her position at Clemson, Dr. Beck was a professor at the University of Nebraska - Lincoln. Dr. Beck is a past president of the Poultry Science Association. She currently serves as the executive secretary of the Southern Poultry Science Association and is a section editor of the journal Poultry Science.

Donate to the Department

If you have the means and the desire, please make a commitment to supporting the teaching mission of the Department of Animal and Avian Sciences by donating to any of the funds below. No matter what the amount, your gift will make a difference and help to preserve the quality of education provided by the Department of Animal and Avian Sciences at the University of Maryland.

There are **THREE** different funds to which you can make your contribution:

1. Animal Sciences Undergraduate Student Fund - Code: 20095 “Animal & Avian Sciences Fund”

<https://advancement.umd.edu/giving/addToGiving.php?Fund=9b04d152845ec0a378394003c96da594>

Contributions to this fund go toward scholarships and educational materials for our undergraduates. Scholarships provide critical support for talented students, putting a college degree within their reach.

2. Animal Sciences Graduate Student Fund - Code: 30611 “Animal & Avian Sciences Department Scholarship Fund”

<https://advancement.umd.edu/giving/addToGiving.php?Fund=5737c6ec2e0716f3d8a7a5c4e0de0d9a>

Presenting their research at national meetings is a crucial part of the development of graduate students toward their degrees and career goals. Contributions to this fund go to support travel to national meetings and educational materials for our graduate students.

3. Animal Sciences Campus Farm Fund - Code: 21723 “Animal Sciences Campus Farm Fund”

<https://advancement.umd.edu/giving/addToGiving.php?Fund=5737c6ec2e0716f3d8a7a5c4e0de0d9a>

Contributions to this fund go toward supporting the Campus Farm, the focal point of our undergraduate program activities. Located immediately across Regents Drive from the Animal Sciences Building, the Campus Farm occupies approximately 3.4 acres of land and houses various livestock and poultry used extensively in teaching laboratories. Support through this fund will ensure that the campus farm can continue to serve as a valuable resource for our students for the foreseeable future.

HOW TO DONATE

Every contribution to the Department of Animal and Avian Sciences is appreciated and makes a difference. We thank you for your support! Donations can be made in the form of a check or online by credit card ([see website for details](#)).

Donating by Check

When writing a check, please make it payable to “UMCP Foundation” and please be sure to specify the CODE number for the fund you wish to donate to. Checks can be mailed directly to the department at:

Department of Animal and Avian Sciences
1413 Animal Sciences Center - University of Maryland
College Park, MD 20742-2311

Attention Alumni!

Want to stay up to date with ANSC happenings?

Click Here to join our mailing list!

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