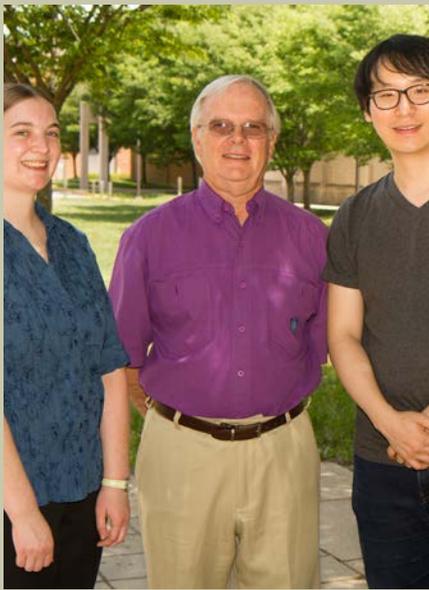




DEPARTMENT OF
ANIMAL &
AVIAN SCIENCES

FALL 2015





Tracy Catterton, Dr. Joseph Soares, Haarin Chun.

SOARES TRAVEL GRANT

Each year Dr. Joseph Soares, Professor Emeritus, makes it possible for graduate students to travel to national scientific meetings through his generous donations.

Dr. Soares believes that graduate students benefit from such experiences and the exposure of presenting at a national scientific meeting, makes them more visible and well known to the scientific community. Many deserving applications were submitted and two graduate students, Tracy Catterton and Haarin Chun, were selected to receive the \$900 prizes. Tracy Catterton is a Masters student in Dr. Richard Erdman's laboratory. She used her award to attend the Joint Annual Meeting (JAM) that was hosted by the American Dairy Science Association and the American Society of Animal Science July 12-16 in Orlando, Florida. Haarin Chun is a student in Ph.D. in Dr. Byung Kim's laboratory. With the prize, he traveled to the Cell Biology of Metals - Gordon Research Conference July 26-31 at Mount Snow in West Dover, Vermont.



Megan Brown.

ALL- S.T.A.R. FELLOWSHIP

The Graduate School has awarded Megan Brown one of sixteen Graduate School All-S.T.A.R. (Scholarship, Teaching, Administration, Research) Fellowships for the academic year 2015-2016.

The Fellowships award \$10,000 stipends to support and honor graduate students who are both outstanding scholars and outstanding graduate assistants at University of Maryland. Megan is the third ANSC graduate student to receive this prestigious award following in the footsteps of Jose Carrillo in 2014 and Lindsey Vansandt in 2013. Megan is a Ph.D. student working with Dr. Carol Keefer.

AGNR SCHOLARSHIP

Serajus Salaheen, Ph.D. student in Dr. Biswas's lab has been awarded the Dr. Richard F. Davis Memorial Scholarship in the amount of \$2,000 from AGNR.



Dr. Iqbal Hamza.

NIH GRANT RENEWED

Professor Iqbal Hamza was recently awarded a renewal of his NIH R01 grant titled "The Transport of Nutritional Heme in Animal Development" for \$2,382,501 over five years.

The main focus of this grant is to identify how humans transport iron into their body by using a genetic and biochemical approach in mice, zebrafish, and human stem cells. Iron deficiency is the most common nutritional disorder in the world and a top ten risk factor for losing healthy years of life in developed and developing countries.

Patent Awarded



Rick Kohn
Professor

Dr. Rick Kohn was issued a U.S. patent on his invention, the “Process for Rapid Anaerobic Digestion of Biomass Using Microbes and the Production of Biofuels Therefrom.”

The patented process increases the rate of biomass digestion to produce methane by decreasing the pressure in the digester to less than atmospheric pressure. Currently, some farmers produce methane gas by digesting

their manure in anaerobic digesters, and this gas can replace fuel gas or be used to generate electricity.

However, the rate of digestion is extremely slow, which requires very large digesters. Dr. Kohn’s innovation aims to make the digestion process faster. This is Dr. Kohn’s third U.S. patent. The previous two patents are for processes to produce the fuel alcohols ethanol and butanol. All three patents resulted from basic research on the fermentation process that occurs in the first stomach chamber, or rumen, of the cow.

Gene Drive Study Panel



Lisa Taneyhill
Associate Professor

Dr. Lisa Taneyhill, an associate professor in the Department of Animal and Avian Sciences at the University of Maryland, has been selected to serve on a committee convened by the U.S. National Academy of Sciences, Engineering and Medicine to study the emerging field of gene drive research.

Taneyhill joins a panel of 15 leading scientists from around the world charged with assessing the potential benefits and risks associated with the recent development of genetic editing tools, such as the CRISPR system, that make it easier for researchers to alter an organism’s DNA in a lab.

“I am truly honored to have been selected by the National Academy,” states Dr. Taneyhill, “and I look forward to working with my colleagues on this important committee assignment.”

Taneyhill and other committee members will take a look at current regula-

tions and discuss the need for further oversight tied to this technology. Specifically, the panel will consider the potential ramifications of releasing genetically modified non-human organisms into the wild in the United States and in developing countries.

A developmental biologist, Taneyhill uses the chicken embryo as a model for exploring the molecular basis of neural crest cell development in the formation of the vertebrate embryo. Her laboratory employs advanced molecular, cellular and biochemical techniques to understand how neural crest cells form, migrate, differentiate, and associate with other cell types to generate a variety of different tissues, including the peripheral nervous system, craniofacial skeleton, and portions of the heart.

A report on the committee’s gene drive study is expected to be delivered by the end of April 2016, with its publication and dissemination to occur sometime between May and July 2016.

29th

Annual Symposium

May 28, 2015

The Department's Annual Symposium held on May 28, opened with DR. MARIANNE WESSLING-RESNICK, Professor in the Department of Genetics and Complex Diseases at the Harvard School of Public Health, giving the keynote talk.



ANNUAL EVENT

Dr. Wessling-Resnick's research effort focuses on genetic disorders of iron metabolism at the molecular level and their implications in complex disease. Her keynote talk was entitled "The Belgrade Rat." Graduate student competed throughout the day with oral and poster presentations until the late afternoon award ceremony and barbeque. Here are the award winners of the 2015 Annual Symposium:

Outstanding Ph.d. Student

Marie Iwaniuk

Outstanding Masters Student

Simon Beardsley

First Place Oral Presentation

Ankita Shah

Second Place Oral Presentation

Haarin Chun

First Place Poster Presentation

Tyler Frankel

Second Place Poster Presentation

Tim Sheets

First Place Shaffner Award

Ankita Shah

Second Place Shaffner Award

Serajus Salaheen

First Place Research Assistant/Postdoc Award

Andrew Shiffmacher

Second Research Assistant/Postdoc Award

Anjali Nandel

Staff Member of the Year

Jennifer Reynolds



Tricia Rowilson discusses poster with student.



Adel Shirmohammadi, Kasey Moyes, Marianne Wessling-Resnick and Byung Kim.



Attendees enjoy lunch in the courtyard during Symposium.

4-H Horse Judging and Hippology Contests

The Maryland 4-H Horse Judging and Hippology Contests were held on May 30 at the University of Maryland College Park. A total of 84 youths from 11 counties participated in the Junior, Intermediate, and Senior Divisions. Hosting this event on campus allows 4-H members and their families from across the state to visit and become familiar with our programs and facilities, while also getting the chance to interact with faculty and staff that help with the event, including Animal and Avian Sciences Extension Coordinator, Jennifer Reynolds and 4-H Equine Coordinator, Brittany Hoffman.



4-Hers evaluate Percheron mares.

Special thanks to the horsemen and women who brought their horses to the Campus Farm for the judging contest and to all of the volunteers who helped with scoring and acted as group leaders. Your support of our 4-H Youth is greatly appreciated.

In the Horse Judging contest, young equestrians competed for top honors by evaluating horses and riders in conformation and English and Western riding classes. Participants competed for team and individual honors, judging eight diverse classes of horses and presenting oral reasons to judges, defending their placings.

The Calvert County Team took top honors in the Junior Division (ages 8-10). Team members are Carrie Jones, Ella Morrissey, and Hayley Spicknall, and coach Dr. Carol Spicknall. Anne Arundel County took second place; Carroll County, third place, and Montgomery County, fourth place. Cecil, Frederick, Howard, and Queen Anne's counties were represented by 4-Hers competing for individual honors.

The first place team in the Intermediate Division (ages 11-13) was from Anne Arundel County, comprised of

team members Heather Barlage, Katie Rose Schuler, Maddie Solley and Phoebe Vacek, and coached by Cindy Solley. Montgomery County fielded the second place team; the third place team was from Howard County, and the Frederick County team placed fourth. Carroll, Charles, Cecil, and Queen Anne's counties were represented by 4-Hers competing for individual honors.

First place honors in the Senior Division (ages 14-18) went to the team from Anne Arundel County, comprised of Carley Gray, Lexi Solley, Caylin Stevens, and Jenna Whittington, and coached by Christa Stibolt. The team from Carroll County placed second, and Montgomery County's team placed third. Calvert, Cecil, Frederick, Howard, Queen Anne's, and St. Mary's County were represented by 4-Hers competing for individual honors.

The top ten Senior individuals now have an opportunity to try out for a spot on the Maryland 4-H Horse Judging team that will compete this fall in national 4-H Horse Judging Contests at the All-American Quarter Horse Congress in Columbus, Ohio and at the

Eastern National 4-H Roundup in Louisville, Kentucky.

In the Hippology contest, 4-Hers demonstrated their knowledge of a broad range of equine science topics including anatomy and physiology, feeding and nutrition, health and diseases, breeding and genetics, tack and equipment, riding and equine sports, and horse trivia. Individual 4-Hers compete against their peers in the Hippology contest; there is no team competition. Participants complete a practical written exam and judge four classes of horses for conformation and performances. Hippologists also must present one set of oral reasons to judges, explaining their class placement. Awards are based on combined total score for written exam, judging, and reasons.

The Junior 4-Hers (ages 8-10) who won blue ribbons in the Hippology Contest were: Hayley Spicknall, Calvert County (Champion), Ella Morrissey, Calvert County, Carrie Jones, Calvert County, Sadie Kalman, Cecil County, Piper Patchett, Queen Anne's County, C.J. Mayhew, Montgomery County, Cecilia Yeager, Carroll County, Alli Simpkins, Anne Arundel County, Dianne Russell, Anne Arundel County, Lilly Ricketts, Montgomery County

The Intermediate 4-Hers (ages 11-13) who won blue ribbons in the Hippology Contest were: Lesley Porterfield, Calvert County (Champion), Brooke Howard, Anne Arundel County, Sydney Keys, Cecil County, Katie Rose Schuler, Anne Arundel County, Phoebe Vacek, Anne Arundel County, Grace Meyer, Howard County, Sophie Wolf, Carroll County, Liana Grosko, Howard County, Lesa Ramsburg, Carroll County, Morgan Blackaby, Cecil County, Morgan King, Queen Anne's County, Brianna Nelson, Calvert County, Emmy Mako, Howard County, Rachael Toombs, Montgomery County

The Senior 4-Hers (ages 14-18) who won blue ribbons in the Hippology Contest were: Ashlee Leshinski, Montgomery County (Champion), Gertrude Tesar, Garrett County, Hannah Cimbalevich, Carroll County, Abby Krohn, Calvert County, Nicole Coccia, Howard County, Samantha Barlage, Anne Arundel County, Melanie Martin, Carroll County, Sierra Criste, Anne Arundel county, Carley Gray, Anne Arundel County, Jenna Whittington, Anne Arundel County, Lexi Solley, Anne Arundel County, Madelyn Sewell, Montgomery County, Wyatt Holtery, Calvert County, Katie Grasser, Carroll County, Tabitha Gregory, Frederick County

The top Senior Hippologists now have an opportunity to try out for a spot on the Maryland 4-H Hippology Team that will compete this fall in national 4-H contests at the All-American Quarter Horse Congress in Columbus, Ohio and at the Eastern National 4-H Roundup in Louisville, Kentucky.

Dr. Burk Appointed to National, State Leadership Roles

AMY BURK, PHD, AN ASSOCIATE PROFESSOR IN THE DEPARTMENT OF ANIMAL & AVIAN SCIENCES AND EXTENSION SPECIALIST, IS SERVING IN POSITIONS OF LEADERSHIP AT BOTH THE STATE AND NATIONAL LEVELS PROMOTING THE FIELD OF EQUINE SCIENCE.



Burk was recently elected to serve as a member of the Equine Science Society (link is external) Board, which brings together scientists and educators in the equine sciences from across the country to establish effective communication among researchers, teachers, Extension and production personnel regarding equine nutrition and physiology. Burk has been a member of the society since 1998 and in 2007 was named its Outstanding Educator.

This September, Burk was also appointed by Maryland Governor Larry Hogan to serve on the Maryland Horse Industry Board (link is external) (MHIB) representing the equine academic community. The MHIB serves a diverse role in the state including advising state officials on equine-related matters, promoting the importance and vitality of Maryland's horse industry, providing financial assistance to the industry through grants and fostering a high standard of care through licensing of equestrian stables.

Burk has worked in the Animal and Avian Sciences Department at the University of Maryland since 2001.



Faculty/Staff Cookoff 2015



Pumpkin Spice Dip
Jennifer Reynolds

Leeter's Saucy Balls
Libby Dufour

aka
"Hanniballs"

"The secret ingredier
is students who didn't
vote for me last year!"



The Faculty/Staff Cookoff was held September 29 with crowds of judges and many talented participants. Competition was fierce as each dish was an amazing creation, and every entry had its devoted fans. Here is how it turned out in the end:

MAIN DISH

1st Place*: Zhengguo Xiao
See You Again

2nd Place: Libby Dufour
Lecter's Saucy Balls

3rd Place: Ray Stricklin
Porcupine Meatballs

SIDE DISH

1st Place: Angela Black
Black's Bean and Corn Salsa with homemade tortilla chips

2nd Place: Chyong-Yi Wu
Maryland Rock & Roll

3rd Place: Janice Barber
That Potato Dish

DESSERT

1st Place: Rick Kohn
7 Layer Chocolate Tort

2nd Place: Sandra Nola
Chocolate Mint Brownies

3rd Place: Kasey Moyes
'leave the gun, take the cannoli'

- 1 Angela Black serving Black's Bean and Corn Salsa with homemade tortilla chips
- 2 Maryland Rock & Roll by Chyong-Yi Wu
- 3 Sandra Nola and Chad Stahl
- 4 Winners: Zhengguo Xiao, Kasey Moyes, Ray Stricklin, Janice Barber, Rick Kohn, Libby Dufour, Angela Black and Chyong-Yi Wu
- 5 Charlie Apter and Jennifer Reynolds
- 6 Janice Barber
- 7 Libby Dufour
- 8 Lasagna Bianco by Chad Stahl
- 9 Bev Teter serving Fruity Dessert
- 10 Briana McBean Linton

*Dr. Xiao insisted he wanted a red ribbon, so he and Libby traded. Since Cookoff has no rules, this is allowed!



COMPETITION

We Have a Winner!

Diamondback Fire, the first foal born in the new equine breeding program raced for the first time on September 4 in Timonium and won!

The colt by Friesan Fire out of Daylight Lassie was born on the Campus Farm on March 8, 2013. The stud service of his sire, Friesan Fire was donated by Country Life Farm. Diamondback Fire aka Rebel was sold at the Fasig-Tipton Midlantic Thoroughbred auction in December 2013 to Mr. Louis Rao, Jr. to become part of his racing operation. Congratulations to Mr. Rao and the UMD equine breeding program!