



ANFS *Scratchings*

THE NEWSLETTER OF THE DEPARTMENT OF ANIMAL AND FOOD SCIENCES

Spring 2017

Issue 10



Message from the Chair

Greetings to everyone!

The past year has been exciting for us in the Department of Animal and Food Sciences (ANFS). We had a record 30 of 31 graduates who applied to and were admitted to a veterinary or medical school. You can read more about their accomplishments on the next page. This year the unofficial count shows that 42 students have applied to veterinary school, and we hope for great success from this class, too! In other news, the college received a grant to expand the UDairy Creamery, and we will soon make cheeses, yogurt and other products in addition to our signature ice cream. (Job security for our cows!)

I am happy to report that we have also had unprecedented engagement by alumni. Included in this issue are narratives by Dr. Robert B. Cohen and Dr. Robert M. Thompson, Jr., two highly successful veterinarians who got their start at UD. Both speak to the strength of our programs in preparing students for veterinary school and other professions, and we are humbled to hear such kind words. This past fall, an alumna started the Dr. Richard E. Fowler Scholarship to provide scholarships for our ANFS undergraduate students. I am also extremely proud of our department's 24 faculty members and the commitment they show to our students.

In fall 2016, we unveiled some changes to our Animal Science and Pre-Veterinary and Animal Biosciences majors. Both majors now include courses on one health and animal behavior. The Animal Science major has also been restructured with new courses, including animal handling and environmental management. Students select one of three focus areas: animal health, animal physiology and nutrition, or protection of the food supply. It is our hope that these changes will make our students even more competitive in the job market.

As always, the ANFS Department is so very grateful for the donations you make that support items such as the cost of student travel to research meetings, costs of research publications and stipends for undergraduate summer scholars, which allow them to gain valuable research experiences. One hundred percent of your gifts will impact the program you wish to support.

You may make your gift to the University, the College of Agriculture and Natural Resources or another program by visiting www.udel.edu/development/makeagift.htm. *However, designating the gift specifically to our department (ANFS) ensures that it will be used in direct support of ANFS faculty and students. Please be sure to complete the "Other designation – indicate a specific purpose below" section and input "Dept. of Animal and Food Sciences."* If you have any questions or require assistance to complete any of these forms, please contact Daniel Sarkissian, Director of Development, College of Agriculture and Natural Resources at 302-831-4595 or djs@udel.edu.

We hope you will continue to stay in touch with us in 2017. If you have any updates or news, please contact Becky at bgeorge@udel.edu, and she will connect you with the right person.

Limin Kung, Jr.

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Edited by Rolf Joerger and Tanya Gressley

Helping Students Realize their Dreams



Written by Dr. Robert B. Cohen, V.M.D. Dr. Cohen graduated with a B.S. in Animal Science from UD in 1972 and is currently the co-medical director and founding partner at Bay Street Animal Hospital in Staten Island, N.Y.

When I entered UD in 1968, I was admitted with average credentials and less than adequate study skills. I was fortunate to find an enriching educational program managed by extremely supportive and kind-hearted educators. Over the following four years, I was molded into an accomplished pre-vet student and blossomed into a mature, top-notch student and responsible adult. I was lucky enough to be mentored by great professors such as Paul Sammelwitz, Ph.D. and Thomas C. Maddox, D.V.M. The nurturing personal connection between the fledgling students and their teachers is what sets UD apart from other institutions. These life counselors prepare students for the arduous graduate school application process, generating extraordinary success

rates. I would never have gotten into the University of Pennsylvania School of Veterinary Medicine if not for my *degree with distinction* and personal support from the CANR program.

The Class of 2016 placed more students in veterinary schools than Harvard, Princeton and Yale! This personal nurturing of students in the Pre-Vet program allowed 28 students to be admitted to veterinary schools and to realize their educational dreams. Our professors went out and opened doors by making personal calls, writing extraordinary letters of recommendation and advocating on behalf of their students for the entire four years they attended the University of Delaware.

The University now needs our support to continue this dedication to excellence in education and professional accomplishments. It should start by re-connecting our graduates who went on to become successful veterinarians and asking for their support. This can happen in many ways in addition to financial donations: mentoring programs at their current animal hospitals; coming to campus and sharing your experience with students about the life of a veterinarian; being an entrepreneur; or even talking about the challenges of being a woman in veterinary medicine.

Celebrating the 2016 Graduating Class

We are always proud of our graduates, and 2016 proved to be no exception. Of the graduates we have been in touch with, 30 are continuing their education in veterinary or graduate programs, 35 have accepted jobs and 1 has joined a service program. We had a record year of veterinary school admits this year, with 28 graduates of 2016 or earlier entering veterinary programs across the country and globe. In addition, two graduates entered medical school. Jobs of Animal Science grads include veterinary technician, research technician, poultry flock advisor and animal keeper at a wildlife sanctuary. The jobs landed by Food Science grads include flavor creation and quality assurance technician, cereal food scientist and



Some students from the class of 2016.

chocolate technician. Most 2016 graduates have taken jobs in nearby states, but we also have graduates in Nevada, Illinois and Florida. Congrats, class of 2016!

Fulfilling the Need for Qualified Veterinary Students

Written by Dr. Robert M. Thompson, Jr, V.M.D. Dr. Thompson graduated from UD in 1981. In 1991, he opened Lums Pond Animal Hospital in Bear, Delaware, where he currently serves as medical director.



As a graduate of UD's College of Agriculture and Natural Resources Pre-Veterinary program in 1981, I cannot say enough about the education I received and how it prepared me for veterinary school.

The program allowed me to become an alternate to admission to Cornell University's College of Veterinary Medicine in my junior year, and I was accepted to the University of Pennsylvania School of Veterinary Medicine the next year upon graduation.

As a teaching assistant in the anatomy and physiology lab under Dr. Paul Sammelwitz, I had a leg up on other veterinary school applicants and also during anatomy lab in veterinary school.

In 2016, UD's Pre-Vet program had 28 students accepted into veterinary schools. Since it is harder to get into veterinary school than medical school, as there are only 30 veterinary schools in the United States, the University has to be congratulated on that accomplishment. Especially since now more than ever, we're facing a need for qualified veterinary students in order to fill those seats at veterinary schools.

Another important component to the Pre-Vet program at UD is the funding of the Delaware Institute for Veterinary Medical Education (DIVME), which allows up to four Delaware resident students to attend veterinary school at in-state tuition rates. This is critical to many students as it was to me.

Now is the time to get involved with CANR to lend your expertise in the positions you have. As an advisor, you have the opportunity to mentor our future leaders, but only involvement can get your ideas and opinions brought to fruition. CANR has big plans and ideas for growth and expansion of the college. As a proud Blue Hen, I have supported the college and the UD football team, having missed only one game in the past two years. I now ask you to get involved with CANR to grow this great college!

Improving the Quality of Poultry Meat

Dr. Behnam Abasht was recently awarded a research grant from the U.S. Department of Agriculture (Grant No. 2016-67015-25027), which aims to characterize the genetic basis of wooden breast disease (WBD) in broiler chickens. WBD affects commercial broiler chickens, making the meat hard and chewy, thus rendering the birds unmarketable. Although it poses no threat to human health, WBD can cause significant economic losses for growers, who sometimes see the disease in up to half of their flocks. That's a big concern in the U.S., which leads the world in broiler chicken production, and around the globe, where chicken increasingly is relied upon as a high-quality source of protein. Dr. Abasht will serve as the principal investigator on the project, which is a collaboration between UD, Iowa State University and Ohio State University.



Left to right: Zhu Zhuo (Ph.D. candidate), Michael Babak (Ph.D. student), Dr. Behnam Abasht and Weixuan Fu (M.S. graduate) at the International Plant and Animal Genome Conference in San Diego.

Awards and Recognitions

Beginning in January 2016, **Dr. Lesa Griffiths** was awarded the T.A. Baker Professorship in recognition of her substantial impact on the college. She also received a grant sponsored by the Provost's Initiative for Excellence and Innovation in E-Learning to enhance the experience of students taking ANFS 251, Animal Nutrition.



Dr. Lesa Griffiths

Dr. Kali Kniel was elected to the Executive Board of the International Association for Food Protection, an organization that represents more than 4,000 food safety professionals committed to advancing food safety worldwide. As part of this five-year commitment, she began as secretary in 2016 and will serve as president in 2019.



Alumna **Dr. Cynthia M. Stewart** was one of the recipients of the College of Agriculture and Natural Resources Distinguished Alumni Award. Dr. Stewart received her B.S. and M.S. degrees in Food Science at



Alumna Dr. Cynthia M. Stewart

the University of Delaware and a Ph.D. from Rutgers University. She

has held positions with various food companies, testing laboratories and food research institutions. Currently, Dr. Stewart serves as the global cultures and food protection technology and innovation leader at DuPont Nutrition & Health. She is also the president-elect of the Institute of Food Technologists (IFT), the largest food science and technology profession society in the world.



Dr. Griffiths and Susan Garey with 37 students in New Zealand.

In Winter 2016, **Dr. Lesa Griffiths** and **Susan Garey** went back to New Zealand for a Winter 2016 study abroad trip with a record number of 37 students!



Zhu Zhuo, graduate student in the laboratory of **Dr. Behnam Abasht**, received an award for her presentation at the International Society for Animal Genetics (ISAG) meeting in July 2016. She also received an ISAG travel bursary for her participation in the conference.



Welcome to Our New Staff Member

We welcomed Ann Marie Green as administration assistant III on April 1, 2016. Ann Marie received her B.A. from UD in 1988 and returned to New Jersey following graduation. She started working at UD in 2008 in the School of Education (now the College of Education and Human Development). She learned much about UD's policies and procedures after almost eight years and enjoyed the work but was eager to begin her next chapter with ANFS.

Remembering Tess

We thought many of you would want to know that Tess passed away of natural causes in February 2017. In her 22 years on campus, Tess taught thousands of students. She was an Appendix Quarter Horse that came to us as a yearling from Penn State University. Tess leaves behind her offspring, Magic and Tallulah.

News from Students and Their Organizations

The **Animal Science Club** started 2016 off by performing outstandingly well at UConn in the annual Northeast Student Affiliate (NESA) competition last February. All teams did very well in the quiz bowl, livestock judging and paper presentations. They spent the fall semester preparing for the 2017 competition at the University of Rhode Island and competed at the end of February. In the quiz bowl, Katie Pacer and Ashley Gouge received the 2nd and 6th best individual judging scores, competing against 100+ contestants!



Animal Science Club students help children "operate" on stuffed patients at Ag Day.

Alissa Moritz, Laura Statts, Joey Rea and Shane Cronin made up UDel Team F that reached the quarterfinals, with a hard-fought loss against a tough competitor from Penn State.

The club finished out Spring 2016 with some great activities, including

ultra-sounding sheep, a behind-the-scenes tour of the Cape May Zoo, a tour of the Tri-State Bird Rescue and the always amazing Ag Day! In Fall 2016, the Animal Science Club has continued with monthly PAWS De-Stress events. They also had some amazing speakers come to visit, including Douglas Tindall from the University of Missouri Veterinary School and Leslie Janecka from the Kentucky Equine Management Internship Program. The year also included fun trips to farms like Kilby Cream and a tour of a wolf sanctuary!

This past semester, the **Food Science Club** hosted a variety of events. Starting off the year, club members hosted a cooking competition based on the popular Food Network show, "Chopped." Teams of two students were given four secret ingredients and one hour to create a delicious entree, which was judged by a panel of students and professors. The club hosted several other social events, including a trip to Hershey Park and two new-product tasting meetings.

For networking, students traveled to the Herrs Potato chip factory and the Dietz & Watson factory to see the process of making assorted chips and meats, respectively, and to meet some of the people in charge. They also went to Supplier's Night and the Holiday Dinner hosted by the Institute of Food Technologists (IFT). (The Food Science Club is a chapter in this international organization.) They met other students in food science and employers in the industry. Members

of the Food Science Club also take part in community service; for the seventh year in a row, they baked sweet potato pies for the Food Bank of Delaware to serve during the Thanksgiving Holidays.



Contest winners Caitlin Blades and Allison Ni, who made a Mediterranean pizza with a tortilla crust, roasted pork, pineapple and cottage cheese topping (the secret ingredients)



Food Science Club members visit Dietz & Watson.

ANFS would like to thank the alumni who provide support to the Department of Animal and Food Sciences, as both the Animal Science Club and Food Science Club received funding through your generosity to support the NESA and IFT trips.

Announcement: Dr. Richard E. Fowler Scholarship

Through a generous gift from an anonymous alumna of the Department of Animal and Food Sciences (ANFS), we proudly added the Dr. Richard E. Fowler Scholarship to our roster of endowed scholarships supporting undergraduate students in fall 2016. Named in honor of Dr. Richard E. Fowler, who served on the faculty in the department from 1968 to 1984 and as the director of UD Cooperative Extension from 1984 to 1996, the scholarship recognizes his leadership and influence on so many students. The donor cited a desire to create this scholarship to support students who demonstrate excellence in academics, generosity in spirit, honesty and ethical behavior—characteristics most representative of Dr. Fowler during his career at UD.



Nancy and Dick Fowler

Reflecting on the scholarship, Dr. Fowler stated, “This is an incredible honor and a very humbling experience. I am very grateful for the atmosphere within the department that supported good teaching and for the encouragement of students and faculty colleagues for their support and inspiration. My wife Nancy and our three sons, who are graduates of the University of Delaware, and I were overwhelmed by the announcement that a scholarship in my name

had been established for Animal Science students at Delaware. Sharing livestock science knowledge with students was a highlight of my career. It was fun and a learning experience for me as well. Students selected for the scholarship will benefit by receiving the gift of an excellent education in an outstanding department and college. It is my hope that the students who are awarded the scholarship prosper greatly not only in their academic pursuit but in their contributions to their family, to the body of science, to education and to the people whose lives they touch. Thank you to the donor and all who helped along the way to make this scholarship possible.”

To grow the impact of the **Dr. Richard E. Fowler Scholarship** for future generations of UD Pre-

Veterinary and Animal Science students, the donor is hopeful that other ANFS alumni will consider a gift to the scholarship now or in the future. Contributions can be sent to University of Delaware, Gifts Processing, 83 E. Main St., 3rd Fl., Newark, DE 19716. Gifts can also be made via the University of Delaware’s secure website, www.udel.edu/makeagift (select “**Other**” and fill in “**College of Agriculture and Natural Resources – Dr. Richard E. Fowler Scholarship**”).

Update on Dr. Haenlein

Note: Dr. George F.W. Haenlein was a professor in ANFS from 1957 to 1999. He is also a primary contributor to The Dairy Scholarship awarded to deserving students each year.

When I retired in 1999 after 42 years, I had over 500 Extension publications, 167 refereed publications and 6 books. I never asked for royalties because I felt my University salary was enough, and because I knew farmers had little money, especially farmers in foreign countries like Panama, Romania or Mexico, where I worked for the Foreign Aid Section of the State Department. While at UD, I was part of the enormous improvement in nutrition and milk production of dairy cattle. When I started in 1957, our Holstein herd was milking 8,000 pounds per cow per year. When I retired

in 1999, my Holstein cows milked 23,000 pounds per year. In 1960, I pioneered (ahead of most dairies) the big change from stanchion barns to loose housing with computerized feeding, computerized nursing of calves



George and Lizzy Haenlein

and computerized milk recording. The urban nearness of the University Dairy Farm is a golden Extension and education opportunity. Therefore, I started some years ago to fund The Dairy Scholarship to give deserving students some financial help.

From the beginning in 1957, I had a good load of courses, which I enjoyed teaching every year: dairy cattle management and dairy cattle reproduction with labs on the farm, dairy cattle judging, milk and cheese contest training, and behavior of domestic animals. The latter was a pioneering new offering favored by our Pre-Veterinary students, with enrollments up to 80. I also trained 4-H and FFA dairy judging teams and judged dairy cattle contests at the State Fair and in neighboring states. For 22 years, I was an accredited judge at national and international cheese judging contests.

Creamery Expansion Project

The success of the UDairy Creamery has prompted an expansion project! Currently, the UDairy Creamery flavors, freezes and packages premium ice cream from a mix made with the milk from UD's cows at Cumberland Dairy in New Jersey. The expansion project will increase hands-on learning by UD students, with the product line available on campus as well as to alumni and the public. Phase 1 includes renovations of 124 Worrilow into a Grade "A" USDA-approved facility. These renovations will allow us to produce milk and milk products such as yogurt, protein dairy drinks and butter immediately or in the future. Phase 1 will also include additional ice cream freezing equipment to increase production and storage.

Phase 2 of the expansion project will include a vat pasteurizer, cheese molds, aging room and other equipment to make UDairy signature cheeses. A variety of hard or semi-hard cheeses will be aged for various lengths and available for sale.

Phase 3 of the project will be the addition of a high-temperature/short-time pasteurization system, blending equipment, a milk separator, homogenizer and several bulk tanks in order to process ice cream mix directly from the milk from our farm. Future products will be offered at the current UDairy Creamery storefront or purchased online and shipped across the U.S.

The UDairy Creamery continues to expand learning opportunities for students. Iron Hill Brewery and

In retrospect, I am very thankful to God for guiding me through so many different and difficult assignments, most of which I did not plan but were handed to me: the initial State Department scholarship to come across the ocean to the University of Delaware; the fellowship from the National Science Foundation to earn my Ph.D. at the University of Wisconsin-Madison, while my dear wife Lizzy and I had already five happy children; the invitation of Dean Worrilow to work for the University of Delaware; the skilled and faithful support from herdsman Ivan Huff and Richard Morris; the cheerful support by the dairy farmers of Delaware, especially Purnal Friedel, Sr.; and the great faculty members of the department.

In 2017, I will be 90 years old, God willing, and with thanks for the good care at this Old Folks Home in West Virginia.

Restaurant has teamed with the UDairy Creamery to offer an internship opportunity in brewing to a qualified undergraduate student in the College of Agriculture and Natural Resources this spring. The



UDairy Creamery student employees Dan Keeports, Ali Keith and Stacie DeLucia preparing ice cream.

partnership also allows the UDairy Creamery to provide Iron Hill with exclusive ice cream flavors that can currently be found at the company's 12 tri-state brewery restaurant locations.

Early May marks the opening of the UDairy Creamery's first off-campus location. The storefront at 815 North Market Street, directly across the street from Wilmington's Grand Opera House, will bring UDairy's premium, handmade ice cream to downtown Wilmington.

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The Department of Animal and Food Sciences is pleased to recognize alumni, faculty, staff, parents, students, organizations and friends who supported the department during calendar year 2016. The following listing includes donors who made gifts to support designations within the ANFS Department from January 1, 2016 through December 31, 2016.

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