

# RUTGERS UNIVERSITY

# EQUINE SCIENCE QUARTERLY



From Our Stable To Yours

Fall 2018

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Dr. Burt Staniar will return to Rutgers after a successful live demo presented at the 2018 Horse Management Seminar (pictured above). He will return to give a keynote as well as a "repeat performance" of the demo titled "How Fiber Behaves in the Equine Gut: A Visual Tour".

## Annual "Evening of Science & Celebration" to Showcase Equine Research and Award Presentations

The Rutgers Equine Science Center will host its annual "Evening of Science & Celebration" on Thursday, November 8 from 6:00 - 9:00 pm.

This year, Dr. Burt Staniar will deliver the keynote presentation titled, "How Fiber Behaves in the Equine Gut: A Visual Tour".

Dr. Staniar is an Associate Professor of Equine Science in

the Animal Science Department at Pennsylvania State University, specializing in equine nutrition, pasture research, and gastrointestinal health.

The Evening of Science and Celebration is an opportunity to unite equine professionals, horse owners, farm owners and barn managers, educators and students, 4-H members, and all equine enthusiasts

Continued on pg. 4

# From The Clubhouse



Join us for a fun filled  
“Evening of Science  
& Celebration” on  
November 8, 2018.

Dear Friends,

We have been literally “thrown” into the fall semester, and the Equine Science Center has been busy with a variety of projects and events. I’d like to welcome our new Ph.D. student, Ellen Rankins, who joined the program in Endocrinology and Animal Biosciences on September 1.

Ellen comes to us after finishing her master’s degree at the University of Florida. She is interested in Equine Assisted Activities and Therapies and will be working with Dr. McKeever and myself on an exciting new research project involving horses and veterans. See Ellen’s full story on [Page 10](#).

On September 17, Center faculty, students and staff joined the Landy family at Freehold Raceway for the 7th annual Open Space Pace. This year we were joined by the Rutgers Seeing Eye Puppy Raising Club which spent the entire day with us.

The pups were a HUGE hit with the Freehold crowd and were extremely well behaved. This event provided wonderful exposure for the club and a new training venue for the puppies.

On top of all that, the center received a \$1,000 check in recognition of its efforts in helping keep agriculture in the Garden State. See [Page 6](#) for more pictures and a brief story.

On November 3, the Equine Science Center will host the first wet lab here on campus for the New Jersey Association of Equine Practitioners. Hosted by Universal Imaging and Zoetis, the daylong program will feature hands on training in ultrasound imaging for continuing education credits for veterinarians. See the story and registration information on [Page 8](#).

Right around the corner is our annual “Evening of Science and Celebration” sponsored by Mid-Atlantic Equine Medical Center. This year’s keynote address is by Dr. Burt Staniar from Penn State University. Dr. Staniar wowed us with his talk about the importance of fiber in the horse’s gut at the Horse Management Seminar last February so we asked him for a repeat performance. And performance it is!

Dr. Staniar will use his high power blenders to make a smoothie appropriate for horses and to stress how critical particle size and mastication is to keeping a horse happy and healthy. To learn about the other presentations, and the awards that will be presented, take a look at [Page 1](#).

I also will be offering the Developing Future Leaders for the Equine Industry course in a new format in the spring. In an attempt to attract Rutgers students I will be offering the course on late Monday afternoons from January 28- April in Bartlett Hall on the G.H. Cook campus. Industry folks are welcome to take the course for the nominal fee of \$150 for the 10 week course. See details on [Page 17](#).

I look forward to seeing you all soon at the “Evening of Science and Celebration”!

All the Best,  
karyn

# PARTNERS



New Jersey Farm Bureau's primary purpose is to represent the overall interests and improve the financial well-being of farmers and our \$800 million industry. NJFB activities are supported through voluntary membership and annual dues. Members have access to:

- Staff assistance on farming issues and regulatory problems.
- Educational workshops on topical issues such as farm labor, wildlife damage, and zoning.
- Weekly updates on legislation news and regulations affecting all aspects of farming.

It pays to be a NJ Farm Bureau member! For a full list of membership levels and benefits, or to sign up, visit: [www.njfb.org](http://www.njfb.org).



UMH Properties, Inc., is a real estate investment trust that owns and operates manufactured home communities in seven states throughout the north-east.

UMH has been in business since 1968, operating as a public company since 1985. The company owns a portfolio of over 90 manufactured home communities, housing approximately 15,700 home sites.

In addition, they own over 810 acres of land for the development of new sites. It is our mission as a company to provide the best quality affordable home for the hard working residents of Pennsylvania.

UMH communities are perfect for residents of all ages, let us help up you find your dream home today.

For more information about UMH Properties, Inc., please visit: [www.umh.com](http://www.umh.com)



The New Jersey Department of Agriculture (NJDA) is an agency which oversees programs that serve virtually all New Jersey citizens. One of the Department's major priorities is to promote, protect and serve the Garden State's diverse agriculture and agribusiness industries.

In addition to the programs we offer to support production agriculture, NJDA also manages programs that feed schoolchildren, distribute surplus federal foods to soup kitchens and pantries that serve our needy citizens, conserve precious soil and water resources, protect farmland from development and preserve it for future agricultural use, expand export markets for fresh and processed agricultural products, and promote our commercial fishing industry, and administer the complete program of agriculture, food and natural resource education, which includes the State FFA Association.

For more information about NJDA, please visit: [www.nj.gov/agriculture](http://www.nj.gov/agriculture)

## UPCOMING 2018 - 2019 EVENTS

### Ultrasound Wet-Lab For Veterinarians

*Saturday, November 3, 2018*

Red Barn - Cook Farm  
Rutgers, The State  
University of New Jersey  
New Brunswick, NJ 08901

<http://njvma.org/njaep>

### Evening of Science & Celebration

*Thursday, November 8, 2018*

Cook Student Center  
Rutgers, The State University of NJ  
New Brunswick, NJ

[kylehart@njaes.rutgers.edu](mailto:kylehart@njaes.rutgers.edu)

### Horse Management Seminar

*Sunday, February 10, 2019*

G.H. Cook Student Center  
Rutgers, The State University of NJ  
New Brunswick, NJ

[esc@njaes.rutgers.edu](mailto:esc@njaes.rutgers.edu)

### Junior Breeders Symposium

*Saturday, March 30, 2019*

Cook Farm  
Rutgers, The State  
University of New Jersey  
New Brunswick, NJ 08901

[carey.williams@rutgers.edu](mailto:carey.williams@rutgers.edu)

For more events, visit our website @ [esc.rutgers.edu](http://esc.rutgers.edu)



Somerset County 4-H Agent Carol Ward and 4-H Horse Round-Up advisor Judy Hennessey present recognition awards at the 2017 Evening of Science & Celebration to the representatives of New Jersey who attended the Eastern National 4-H Horse Round-Up.

## Annual “Evening of Science & Celebration” to Showcase Equine Research and Award Presentations

Continued from Pg. 1

for the purpose of learning about current projects and ongoing research initiatives being conducted at the Equine Science Center.

The evening will begin promptly with dinner at 6:00 pm, after which Brittany Smith, a New Jersey 4-H Roundup member and Rutgers SEBS student, will present her public speaking presentation, “The Cold Never Bothered Me Anyway” on international horse racing in Switzerland on ice!

Additional presentations scheduled will include: Highlights of Center Activity, “The Grass Is Greener” Pasture Research Update, and “Fit As A Horse” Equine Muscle Physiology Research Update.

Award presentations will honor those from within the equine community for their efforts in making a difference. Kennis “Buttons” Fairfax, a

renowned horses show judge and clinician from Westfield, NJ, will receive the 2019 “Spirit of the Horse Award” for his lifelong commitment to advancing the proper care and management of horses, and for his contributions to youth education.

The Center will also present its annual Gold Medal Horse Farm award to John Crater & Mortonhouse Farm in Long Valley, NJ. The award, part of the New Jersey Equine Environmental Stewardship Program, gives recognition to outstanding equine farms for their dedication to environmental sustainability and management.

The event requires registration that can be made online at: [www.bit.ly/2018Evening](http://www.bit.ly/2018Evening).

The fee for the event, which includes dinner, is \$35 for adults and \$15 for full-time students.

THE EQUINE SCIENCE CENTER INVITES YOU TO AN EVENING OF...

# Science & Celebration

Thursday, November 8, 2018

Cook Student Center, 59 Biel Road,  
New Brunswick, NJ 08901 • (848) 932-7617

## OPEN TO ALL HORSE ENTHUSIASTS!

*Event highlighting the Equine Science Center's work in advancing equine health, horse management practices, and solutions to equine industry issues.*

### Schedule:

6 to 7 p.m. - Light Supper

7 to 9 p.m. - Program Highlights

- Keynote - Dr. Burt Staniar from Pennsylvania State University
- 4-H Roundup Team Presentation
- Equine Science Center Presentations
- Spirit of the Horse Award
- Gold Medal Horse Farm Award

## Event Registration Closes:

**THURSDAY, NOVEMBER 1<sup>ST</sup>, 2018**

To register, please go on-line to [www.bit.ly/2018Evening](http://www.bit.ly/2018Evening)

Event fee: \$35 for adults & \$15 for full-time students

Please remit payment & mail to: Rutgers Equine Science Center

57 US Highway 1, New Brunswick, NJ 08901-8554

Phone (848) 932-9419 • Fax (732) 932-2658

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 [instagram.com/ruequinescience](https://instagram.com/ruequinescience)

 [twitter.com/RutgersESC](https://twitter.com/RutgersESC)

 [pinterest.com/RutgersESC](https://pinterest.com/RutgersESC)



# RUTGERS

New Jersey Agricultural  
Experiment Station



Michael Westendorf

GOLD MEDAL HORSE  
FARM AWARD



Karyn Malinowski

CENTER HIGHLIGHTS



Burt Staniar

HOW FIBER BEHAVES  
IN THE EQUINE GUT:  
A VISUAL TOUR



Jennifer Weinert

THE GRASS IS GREENER



Dylan Klein

FIT AS A HORSE



Sponsored By:

MID-ATLANTIC  
EQUINE MEDICAL CENTER



# Open Space Pace

## "It's A Zoo Out There:" From "Zebras" and "Giraffes" to Puppies and Ponies

**T**he 2018 Open Space Pace took place on Saturday September 15<sup>th</sup>, at Freehold Raceway.

This year the Equine Science Center was joined by the Rutgers University Seeing Eye Puppy Raising Club.

Club members, including 5 puppies who are currently a part of the training program, joined the Center as volunteers and staff from the Center marched down the streets to bring awareness to Open Space in New Jersey.

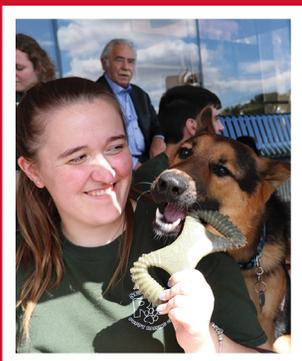
Following the parade was a fun filled day of

racing, food vendors, live music, petting zoos and so much more.

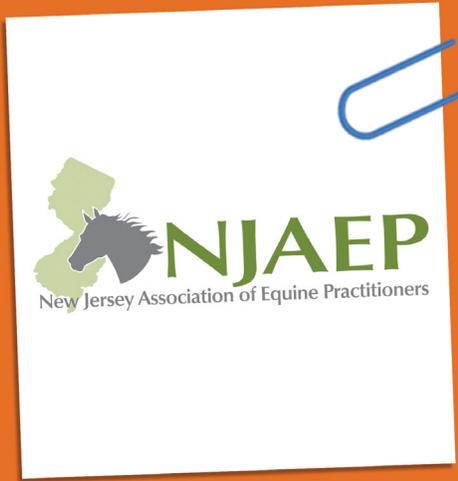
The Center tabled throughout the day, giving away hand sanitizer and the always popular horse sports bags promoting the "Equine Science 4 Kids" program.

While kids were excited to receive the sports bags, having a few puppies at the table didn't hurt the Center's turnout.

Four students from Rutgers University received \$1000 scholarships as a part of the scholarship raffle that took place throughout the day.



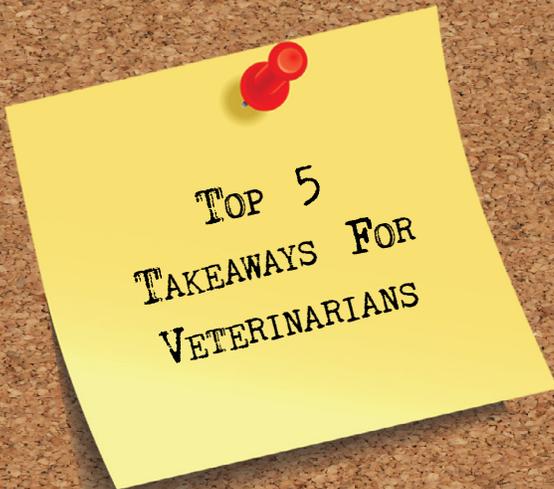
To see more of the pictures from the event, please go to: <http://bit.ly/2018OSP>



Lab Notes - Collaborators

## From The Lab:

Wet-Lab to be hosted by the Rutgers Equine Science Center in conjunction with the New Jersey Association of Equine Practitioners in November



#1

Evaluation and review of normal ultrasonographic anatomy.

#2

Discuss and assess pathological processes seen in the performance horse.

This continuing education wet-lab offers practicing veterinarians the opportunity to refine their ultrasonographic skills along side some of the leading veterinary imaging experts in the US.

This will allow veterinarians advanced diagnostic skills that can be implemented in their clinical practices.

This wet-lab is sponsored by our industry partners, Zoetis and Universal Imaging LLC. and hosted by Rutgers University and the Equine Science Center.

The facilities and the Rutgers Research Horses offer an exceptional opportunity for veterinarians to optimize their educational experience on anatomy and pathological processes afflicting our performance horses.

Region focuses in this exercise include Stifle/Neck/Pastern in the morning portion of the wet-lab and Back/Sacroiliac in the afternoon portion.

Instructors for the wet-labs include

Katherine Chope, VMD, DACVSMR and Wade Tenney, DVM.

In 2002, Dr. Chope joined the faculty as Clinical Assistant Professor at Tufts Cummings School of Veterinary Medicine. Dr. Chope has lectured extensively and given equine ultrasound wet labs at numerous regional, national and international meetings.

Dr. Tenney currently serves as Clinical Assistant Professor at Tufts Cummings School of Veterinary Medicine.

Dr. Tenney worked in 3 private referral practices prior to joining Tufts in 2013. He has also spent considerable time working at the HITS Horse Show in Thermal, CA and the Winter Equestrian Festival in Wellington, FL.

Dr. Tenney spends some of his off-clinics time serving as an FEI Delegate at events across the US.

If you are a NJ Veterinarian and are interested in registering, please go to:

<http://njvma.org/njaep>

**#3**

**Refine diagnostic skills with advanced imaging techniques.**

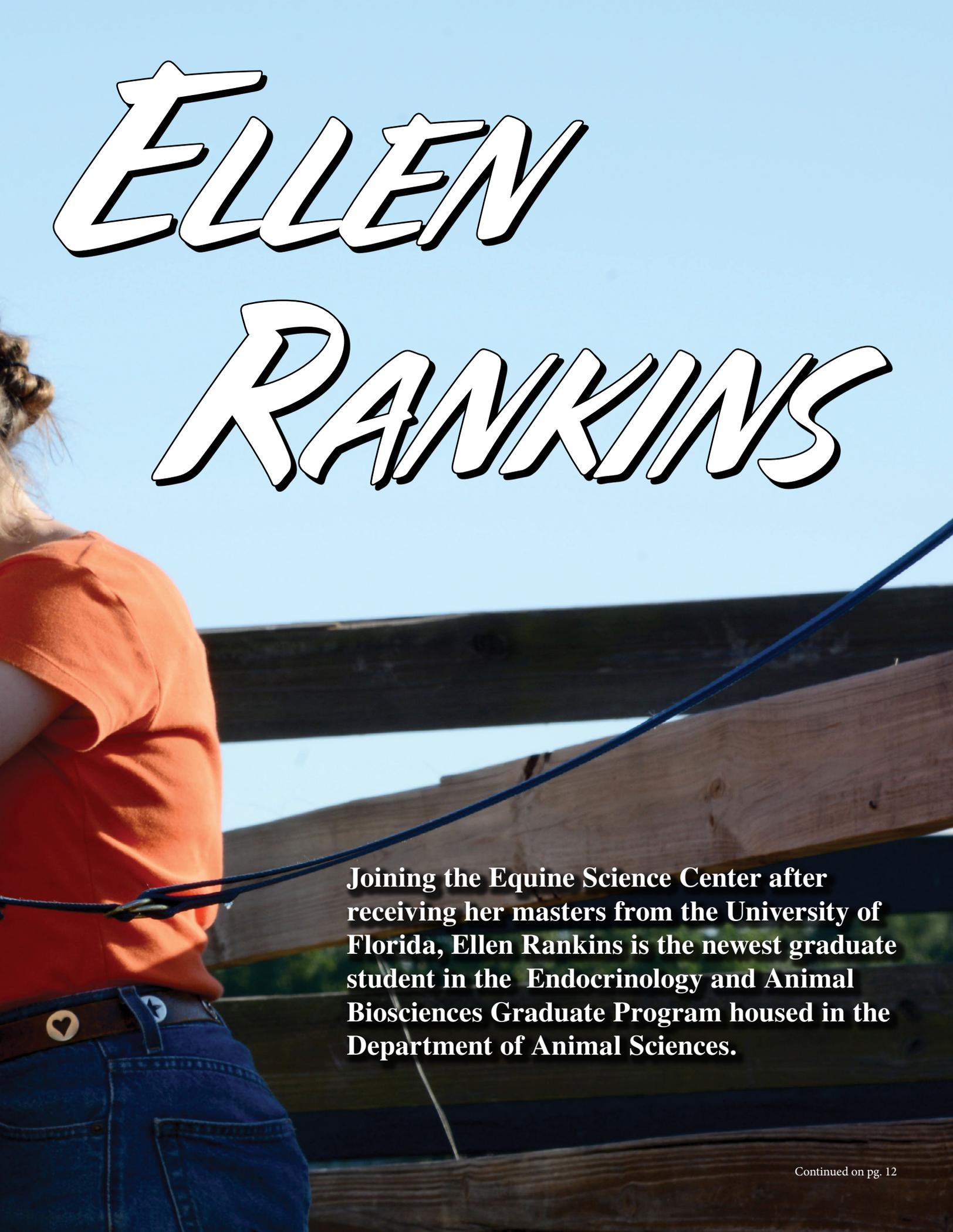
**#4**

**Develop expertise in select anatomical locations that can be implemented into clinical practice.**

**#5**

**Collaborate with experts in the field of diagnostic imaging.**



A person wearing an orange t-shirt and blue jeans is seen from the side, holding a blue rope. The background features a wooden fence and a clear blue sky. The name 'ELLEN RANKINS' is written in a large, white, stylized font with a black outline across the top of the image.

# ELLEN RANKINS

**Joining the Equine Science Center after receiving her masters from the University of Florida, Ellen Rankins is the newest graduate student in the Endocrinology and Animal Biosciences Graduate Program housed in the Department of Animal Sciences.**



Rankins joined by one of her favorite horses, Cowboy, on the family farm in Cusseta, Alabama. She credits this as "where it all began."

**B**orn and raised in Cusseta, Alabama, Rankins grew up on her family farm with cattle, goats, chickens, Border Collies, a cat, and horses. An avid horse lover since she was young, Rankins pursued this passion by working on the family farm and as an active member of the Alabama 4-H Horse Program.

In elementary school she began volunteering at Storybook Farm, a local therapeutic riding center, where she would clean the stalls and groom horses. She worked her way up the ladder and soon started helping the instructors during riding lessons with the kids.

She gained so much experience at the facility that in high school the executive director approached

her and asked if she would want to teach some of the lessons herself and if she wanted to become one of the instructors.

Excited by this new opportunity, she said yes and asked what she would have to do. She soon became a certified instructor and taught lessons throughout the remainder of high school.

While she originally considered becoming a jockey when she was younger, as she became more knowledgeable about the industry she realized the lifestyle associated with such a career might not be in the cards for her.

Rankins started to look at colleges with animal science departments and found that Auburn University, which was only a half-hour away from home, would not only provide her with the opportunity to get an animal sciences degree, but would also allow her to do it while receiving a concentration in equine sciences.

As she continued giving lessons at Storybook Farm during her time

at Auburn, she began to wonder if the field of equine assisted activities and therapies (EAAT) could be an option. With this in mind, she sought out opportunities that would both help her gain a larger knowledge base in EAAT, and gain more experience as an instructor.

Interning as a volunteer at Dreamcatchers at the Cori Sikich Therapeutic Riding Center in Williamsburg, Virginia, she spent three months doing anything and everything that she could. From teaching lessons to exercising horses, she made sure she gained a deeper appreciation of all aspects of running a successful center and providing the highest level of programming possible to the clients.

A second internship, the summer of her junior year, offered her the opportunity to work as a therapeutic riding instructor in Singapore. The therapeutic riding center, Equal Arc, was a new facility that had brought in an instructor from the United States to develop and establish a new program.

Rankins joined as one of the instructors, and taught lessons every morning and afternoon, as well as mentored “instructors-in-training” on a daily basis throughout the week. Students from a few local schools were brought as a class to the therapeutic riding center to use EAAT as a way to help the students learn new skills and overcome any emotional, physical, or intellectual challenges they may face.

Due to Singapore, being a highly industrialized city, limited space for large pastures led to a different way of managing horses in this large populated city.

The experience was also eye-opening and humbling as it was her first time leaving the United States. Being in a different country across the world, and working with people from different backgrounds and cultures, helped her gain new perspectives on the different ways in which people use EAAT.

As a sophomore, Rankins decided she was interested in pursuing an Honors Thesis project. This project would be a joint venture between the Department of Animal Sciences and the Department of Kinesiology’s Sport Biomechanics Lab at Auburn looking at the kinematics of horses when ridden by riders without a disability, versus a rider with a disability.

This project allowed her to pursue her interest in equine assisted activities and therapies, and start to compile a foundation for her future research. While she knew that she would be content with graduating college and becoming a full-time



Volunteering at Storybook Farm's Football Day, Rankins taught two young attendees how to lead a pony. All of the animals on the farm are named after literary characters, in this case the pony's name being Tom Sawyer. Sawyer is pictured here being led by two boys whose first experience being this close to a horse just so happens to be hands-on.

therapeutic riding instructor, she also knew that she enjoyed learning and being in the classroom. This drove her decision to start applying to graduate programs, and she was ultimately admitted to the University of Florida.

Pursuing a Masters degree in Animal Sciences, Rankins research focused on horse selection and temperament. She hypothesized that if temperament can be tested then it can be used to select horses for EAAT programs, ultimately being

used as a way to select horses that would be the best fit for activities and lessons.

She also wanted to make sure that temperament wasn't the only indicator being used for selection, noting that other factors such as conformation, movement pattern, and size should be taken into consideration.

Just a short 24-minute drive from campus, she also continued her involvement with EAAT as an instructor at Stirrups 'n Strides Therapeutic Riding Center in Citra, Florida. Her weekly outings provided a chance to take a break from classes and research while serving as a reminder of why she wanted to pursue higher education in the first place. Since every center is different, she also saw a new aspect of EAAT in which participants were encouraged to pursue competitive riding if they wished to. This center also utilized adapted driving as a part of their programming.

As graduation approached, Rankins knew she wanted to continue into a PhD program as she found a passion for teaching and research through her cumulative experiences as an undergraduate and graduate student. The broad array of topics she had been exposed to through research and classes led her to settle on exercise physiology as her next area of interest. This decision was informed by her desire to learn about different aspects of the complex system that is the horse, and a goal of eventually being able to synthesize them in a meaningful and informative manner.

Originally contacting Dr. McKeever due to his research in the field of equine exercise physiology, she was directed to Dr. Karyn Malinowski who had recently published "The



Rankins, with help from the Kinesiology's Sport Biomechanics Lab graduate student Adam Jagodinsky, ensures that equipment is set-up to correctly to capture the horse's stride as it is led through the data collection space as a part of her thesis project.



Rankins, assisted by undergraduate students and faculty from the University of Florida, prepare for standardized behavioral testing for temperament of horses going into therapeutic riding centers.

Effects of Equine Assisted Activities & Therapies on Plasma Cortisol and Oxytocin Concentrations and Heart Rate Variability in Horses and Measures of Symptoms of Post-Traumatic Stress Disorder in Veterans.” This research focused on how EAAT affected the horse on a biological level, which Dr. McKeever thought would pair very nicely with Rankins’ research on equine temperament research during EAAT.

The two were able to meet during a campus visit, and Rankins was soon accepted as a new student in the Endocrinology and Animal Biosciences graduate program. In fact, due to her previous work, research history, and experience she was granted an Rutgers School of Environmental and Biological Sciences Excellence Fellowship which would allow her to focus on coursework during her first year. With her family’s support, and the welcoming atmosphere at Rutgers, she jumped on the opportunity.

Moving to New Jersey at the end of August, she was at the University for about a month before she

was off again, this time traveling to Rome, Italy, to present at the 14th International Society for Equitation Science Conference.

Her presentation, the "Difficulty of Equine Temperament Assessment in Equine Assisted Activities and Therapies," was lauded as a wonderful presentation, one of the best student presentations of the day by some of the attendees.

“We are extremely proud of her and very much appreciate her having this opportunity to present her thesis data and to represent the work she conducted during her time in the University of Florida equine sciences program,” said Dr. Carissa Wickens, Rankins’ faculty advisor at the University of Florida. “I am happy she is at Rutgers studying under Dr. Malinowski’s supervision and know she will do great things!”

Dr. Malinowski has also been keeping her busy, partly to keep her from becoming homesick, and partly to make sure that she feels like she is a part of the Equine Science Center family. Currently Rankins is helping out wherever she is needed,



Collecting body measurements as a part of her masters research at the University of Florida, these measurements were used in assessing the conformation of the horses.

excitedly taking on writing for Nelson's Blogs at the Equine Science Center and helping her fellow Ph.D. student Jennifer Weinert with research projects.

When she isn't working with the Equine Science Center or Weinert, she spends most of her time studying due to a heavy course load this year. Hoping to finish all of her core classes as soon as possible, she will then be able to devote her full attention to her research study. She also notes that she is slowly learning her way around the New Brunswick area and Rutgers campus.

Her teaching experience as an instructor in EAAT and teaching assistant at UF, coupled with

her passion for research, has led her to realize she eventually wants to work in academia as a professor in an equine related field.

Realizing how critically important the relationship between human and animals is and loving how well the field of EAAT supports the interaction between horses and humans, she thinks a position that can marry EAAT and academia would be a fantastic fit for her.

More importantly though, her love of EAAT and career choice are driven by the idea of service - that what we do is not for us, but to give back to our community and the people around us.

# Developing Future Leaders for the Equine Industry

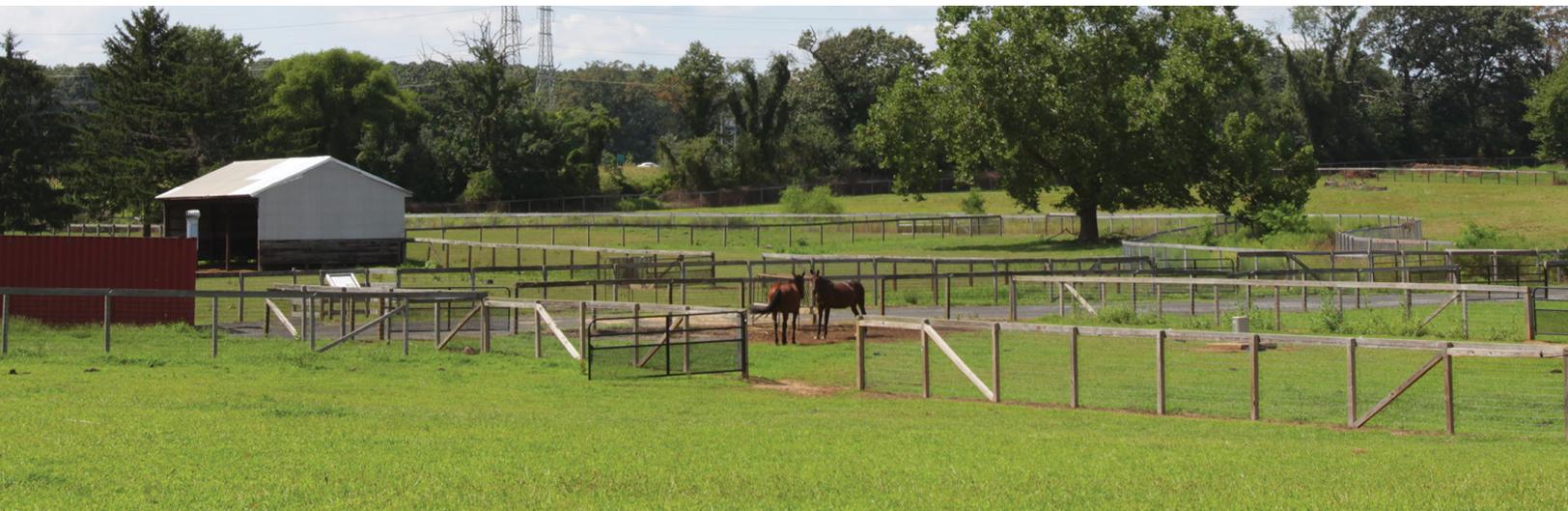
This ten week course is available not only to Rutgers students, but also to individuals with a high school diploma who are involved in the equine industry and agricultural-related businesses.

The course will help students develop skills in a variety of areas including interpersonal communication, decision-making, and conflict management.

## Save the Date!

Mondays January 28 - April 8  
3:55 p.m. to 5:15 p.m.

Bartlett 123  
Cook Campus - Rutgers University



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**RUTGERS**  
New Jersey Agricultural  
Experiment Station

**Equine Professionals:** \$150  
**Students:** Spring 2019 (11:067:413)

For more information about the course please contact:  
Dr. Karyn Malinowski at [karynmal@njaes.rutgers.edu](mailto:karynmal@njaes.rutgers.edu)

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