

Hoofbeats

The Official Newsletter of the Penn State Equine Research Team

May 2014

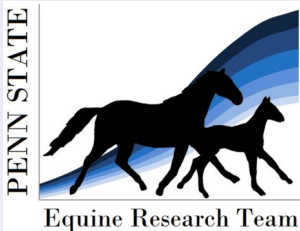
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Continue to follow PSERT's projects, events, and activities online!

PSERT Website:

<http://agsci.psu.edu/clubs/psert>

Facebook: The Penn State Equine Research Team



Another Successful Year for PSERT

Welcome to the spring 2014 issue of *Hoofbeats*! As this year comes to a close and graduation approaches, there is much to be said about PSERT's accomplishments.

From starting a new study run solely by undergraduate students to planning a summer trip to Kentucky and participating in Osteochallenge, we have had both a successful semester and an

accomplished year. In this issue, I will highlight the team's Growth Study as well as our plans for our time in Kentucky. Graduation and the end of another

year have prompted a "Where Are They Now?" article, which will outline some of the many accomplishments of three PSERT alumni, as well as a list of the PSERT members in the PSU Class of 2014. Thank you for your interest in PSERT's endeavors – I hope you enjoy this issue of *Hoofbeats*!

- Samarah LaFoca, Alumni Relations Officer



PSERT members at the annual Osteochallenge 5K.

Undergraduate Research Symposium 2014

On Monday, May 12th, 18 PSERT members (and Dr. Staniar!) traveled to Lexington, Kentucky for the annual Undergraduate Research Symposium, which was held at the University of Kentucky. Members in PSERT, members of the UK equine research team, and students from Ohio State presented their current research projects, as well as toured UK



research facilities and participated in wet labs. PSERT also took some time to enjoy various equine venues, companies, and hospitals. Some of the visits included: Keeneland Racetrack, Kentucky Equine Sports Medicine and Rehabili-

tation Center, Kentucky Equine Research, Three Chimneys, Winstar Farm, Rood and Riddle Equine Hospital, and Hagyard Equine Medical Institute. The trip was both entertaining and educational, and PSERT plans to continue to correspond and collaborate with Ohio State and the University of Kentucky in future years.

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Growth Study Underway and Will Continue into 2014-2015 Academic Year



Dr. Staniar and Mindy Bernard taking measurements on Chip's foal.

Early this semester, PSERT began working on a research project, the goal of which is to characterize the growth of Quarter Horse foals from birth until they are sold at two years of age. Growth curves currently available generally focus on Thoroughbred horses; this is one of the first studies to expand to another predominate breed of horse. PSERT teamed up with members in AN SC 407 (Advanced Horse Management) to participate in foal watch and be present to take the foals' measurements soon after birth. Melissa Howe, a senior undergraduate student studying Agricultural Business Management,

is the project manager of the growth study, and she is assisted by Dr. Staniar and a group of student leaders that have been assigned to a specific topic within the study. The PSERT members chosen as student leaders for the study are Laura Heiser, Ellen Blum, Rachel Spicher, Casey Curry, Allison Elliot, Kianna Spencer, and Alyssa Williams. The study is divided into three major topics of interest: linear (growth) measurements, hoof measurements, and placental size and weight measurements. The linear measurements,



Dr. Staniar negotiating with a foal to obtain accurate hoof measurements.

which have mainly been taken by Dr. Staniar and Melissa, include body length, withers height, hip height, girth circumference, forearm length, cannon length, and cannon circumference measurements. These measurements were taken shortly after birth; withers height and body weight have continued to be taken on either Wednesday or Friday, depending on the foal's date of birth, and the

other measurements have been taken monthly. The hoof length and width measurements were first taken within 24 hours of birth, and have since been taken



Casey Curry taking placental measurements

once per month. In order to obtain accurate measurements, an indentation was made in each foal's left front hoof using a file, and has been used as the basis for

subsequent hoof length measurements. The placental measurements include weight and lengths of various portions of the placenta. These measurements will be compared to the birth weight and linear measurements of the corresponding foal when the data has been fully collected.

The study has been going well; however, like any other research endeavor, it has had its challenges. Fifteen foals have been born to date, but getting them to cooperate and stand still to take the measurements, the hoof measurements in particular, is no small task. Like always, the team has managed to work



A break in the weather has allowed measurements on older foals to be taken outside.

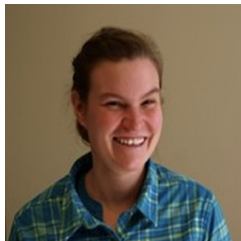
through speed bumps that have popped up along the way, and is on its way to pioneering a new facet of equine growth. Please follow up with future issues of *Hoofbeats* for more updates regarding the growth study!

PSERT has had many successful alumni that now have a variety of jobs in the fields of equine production, management, and training, food service and distribution, veterinary medicine, and many others. In this article, the accomplishments and opinions of three distinguished PSERT alumni will be highlighted, as well as the role PSERT played in directing their career path. Thank you to Callihan Dice, Katie Norris, and Hillary Lobar for your time and consideration in helping to make this article a success!

Hillary Lobar, DVM

Current career

path: Graduate of NC State Veterinary



School, finishing internship at Manor Equine Hospital in Monkton, MD.

Planning to apply for an anesthesiology residency.

Role in PSERT: Hillary was one of the first students to work in Dr.

Staniar’s lab, and completed an honors thesis in glycemic and insulinemic response in mares in 2008, and assisted with the (PSERT) teff hay study, as well as other smaller equine-related studies.

How did PSERT influence your undergraduate career and career choice?:

For Hillary, participating in undergraduate research and experiencing both the hands-on and managerial aspects of research was an

important edge while applying to veterinary school. PSERT (and participating in its research) also allowed her to develop her understanding of science, and has made her a competent reader of peer-reviewed literature.

Advice for PSERT?: Continue to be involved in various aspects of the equine industry, especially the Thoroughbred racing industry; each field of study has something different to offer, so it is important to keep an open mind.

Kathryn Norris

Current career

path: Works at the Memorial Sloan Kettering Cancer



Center in NY city; her responsibilities include: protocol management, data entry, patient interaction, and regulatory oversight of several Phase 1, 2, and 3 clinical trials investigating new treatments for Lymphoma.

Role in PSERT: As an undergraduate member of PSERT, Katie became very involved in Sarah Gray’s master’s project, and provided PSERT with research opportunities in the form of her own master’s project, which studied equine gut permeability.

How did PSERT influence your undergraduate career and career choice?:

Working on Sarah’s study strongly influenced Katie’s decision to pursue her master’s degree. According to Katie, PSERT gave her the opportunity to “explore research and all its complexities,” as well as to develop real-world problem solving skills that

ultimately made her an ideal candidate for her current position.

Advice for PSERT?: Be involved in PSERT’s projects, as the hands-on experience and acquired knowledge will give you the background to explain your involvement. Katie said, “It is much easier to speak about an experience if you understand the why of what is happening while you are doing it. The more you involved you are in the projects, the more you can speak about the intricacies of that project, the easier your future interviews will be!”

Callihan Dice

Current career

path: Works as a County Executive Director for the



USDA Farm Service Agency in Gettysburg, PA and manages the commodity programs in the Farm Bill by ensuring that farmers have the safety net programs they need to manage risk

in their operations. Callihan also trains horses, gives horseback riding lessons, and breeds pigs for 4H and FFA students to show.

Role in PSERT: Callihan was a member of PSERT when it was just getting started, but she did dedicate her time to club meetings and events.

How did PSERT influence your undergraduate career and career choice?:

According to Callihan, PSERT gave her “a profound appreciation for research and development,” and made her contemplate conducting her own research to obtain a

Master’s degree – an option that still has not been ruled out for her future. PSERT also gave her the opportunity to develop her data-taking and problem-solving skills, which have been crucial for her success while working for the USDA.

Advice for PSERT? – Share your experience and knowledge obtained as a member of PSERT with others; many people do not know much about horses, and it is important to use this knowledge to educate them.

PSERT Elects 2014-2015 Executive Board

As PSERT looks toward another great year, a new set of executive board members was elected during the April 1 meeting. Good luck to all the new officers!

2014-2015 Executive Board

President - Danae Oliver

Vice President - Amy Kraus

Secretary - Caitlin Edinger

Treasurer - Patricia Ochonski

Webmaster - Taylor Shears

UPAC Liaison - Hannah Allen

Alumni Relations - Janelle Musser

Social Chair - Sara Groome

Historian - Jenny Lind

**Community Service/
Fundraising** - Katie Baluch

Ag Student Council Reps -
Ellen Blum & Kristen Murray

PSERT Graduating Seniors

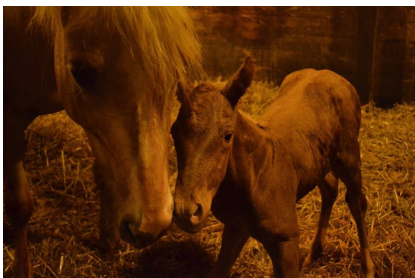
With the semester coming to a close, PSERT would like to acknowledge the accomplishments and contributions of the **Spring 2014 graduating seniors**:

- * Casey Curry
- * Melissa Howe
- * Molly Jordan
- * Samarah LaFoca
- * Kianna Spencer
- * Alyssa Williams
- * Sheila Zimmer

Thank you for reading the most recent issue of *Hoofbeats!* As much as I loved being PSERT's Alumni Relations Officer this year, it is time for me to "pass the torch" onto the 2014-2015 Alumni Relations Officer, Janelle Musser! Since I have a bit of room left at the end of the letter, I decided to include pictures of some of the foals included in the Growth Study (photo credit: Penn State Quarter Horses). Have a great summer!

-Samarah LaFoca

If you know anyone who would like to be added to the PSERT alumni list or would like to receive the newsletter and PSERT updates, please contact Janelle Musser at jzm5694@psu.edu



Palomino filly by Willie Be Nimble out of Fancee Boom Cash



Filly by Willie Be Nimble out of Okie Boogie Jo



Sorrel colt by PSU Dynamic Krymsun out of Hello Dollin