

Biomedical & Veterinary Medicine Quarterly Digest



Spring has Sprung!

Spring is always a busy time of the year at the college

Spring is always an exciting and busy time of the year in the college as students are preparing for research symposia, awards banquets, and graduation. This year has been no exception for the graduate students who have been strongly engaged in multiple research symposia and conferences across and beyond the university campus. Additionally, the graduate students have been recognized for multiple awards at the university and a few have had the exciting experience of defending their research and graduating. In addition to their academic and research progress, the graduate students also participated in philanthropic, social, and career development events throughout the spring semester.

In addition to the tireless work of the graduate students, the faculty and administration has also been working to improve the college with facility renovations (both in progress and in planning stages) and searches for new faculty hires including a virologist and associate dean of research and graduate studies.

First Edition
Spring 2016

UPCOMING EVENTS

June

- 11** – Virginia Cheese Festival
- 18** – Summer Solstice Festival
- 25** – 3rd Annual Summer Beer Festival
- 30** – Up on the Roof Professional Mixer
- 30** – Summer I Classes End

July

- 4** – Independence Day
- 5** – Summer II Classes begin
- 28** – Up on the Roof Professional Mixer
- 28-31** – Appalachian Laser Tag Festival
- 31** – VetTRAC Summer Program Begins

August

- 1-5** – VetTRAC Summer Program
- 11** – Summer II Classes end
- 22** – Fall Semester Classes begin
- 25** – Up on the Roof Professional Mixer

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Congratulations to all our graduates and award winners this semester
- 3** STAMPS DAY OF SERVICE
Stamps scholars participate in inaugural national day of service
- 4** REGENERATIVE MEDICINE RETREAT
Graduate students involved in Interdisciplinary Graduate Education Program gather at yearly retreat
- 5** TOWN HALL MEETING
The college's first town hall meeting with administration from all programs
- 6** COMMUNITY OUTREACH
Graduate students promote veterinary science and research



2016 Vet Med Graduate Student Research Symposium

Congratulations to All of our Graduate Student Awardees and Graduates!

Vet Med Graduate Student Research Symposium

- **Julia Disney and Lauren Groom:** Outstanding Master's Student Posters
- **Elsa Ludwig and Nicholas Parkinson:** Outstanding Master's Student Presentations
- **Ashwin Ramesh and Meriam Saleh:** Outstanding Ph.D. Student Posters
- **Thomas Brickler and Miranda Vieson:** Outstanding Ph.D. Presentations

Virginia Tech Graduate Student Assembly Research Symposium

- **Abdullah Awaysheh:** Gold Poster Presentation Award
- **Dan Rothschild:** Silver Poster Presentation Award
- **James Budnick:** Gold Presentation Award
- **Elsa Ludwig:** Bronze Oral Presentation Award

Virginia Tech Graduate School Awards

- **Caitlin Cossaboom:** Outstanding Science, Technology, Engineering and Math (STEM) Dissertation Award
- **Lauren Sheehan:** Outstanding Doctoral Student Award
- **Nicholas Parkinson:** Outstanding Master's Degree Student Award

Other Awards and Achievements:

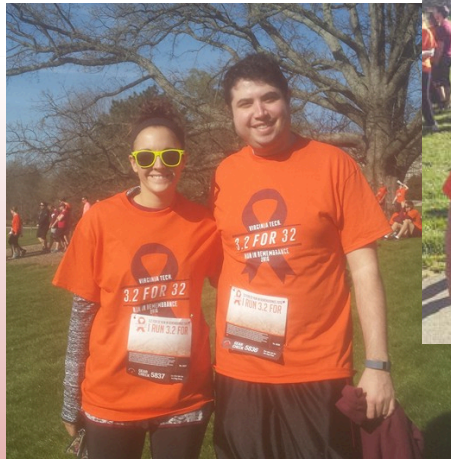
- **Caitlin Cossaboom:** U.S. Centers for Disease Control and Prevention's Hubert Global Health Fellowship
- **Jingjing Ren:** 2016 American Association of Immunology Trainee Poster Award
- **Qian Cao:** Outstanding Graduate Student Presentation Award by the American College of Veterinary Microbiologists at the 96th Annual Conference of Research Workers in Animal Science

Graduates:

- **Backiyalakshmi Venkatachalam (MS):** Evaluation of the Potential Functions of Avian paramyxovirus Accessory Proteins
- **Elsa Ludwig (MS):** Serum and Synovial Fluid Serum Amyloid A Response in Equine Models of Synovitis and Septic Arthritis
- **Dominique Sawyer (MS):** Cytokines and Growth Factor Profile in Canine Autologous Conditioned Serum
- **Vincent Ziglioli (MS):** Normalization of the Hypothalamic-Pituitary-Thyroid Axis After Levothyroxine Supplementation in Euthyroid Dogs
- **Patricia Baltasar (MS):** Shiga Toxin-Producing Escherichia coli: A Public Health Challenge in the Pre-Harvest Stage of the "Farm-to-Table" Continuum
- **Laura Payne (Ph.D.):** Differential Impact of VEGF and FGF2 Signaling Mechanisms on Flt1 Pre-mRNA Splicing

Vet Med GSA Students Participate in 3.2 for 32 Run in

Every year, on April 16, the Virginia Tech community remembers and reflects upon the vibrant lives of 32 students and faculty who were tragically lost in 2007. The community gathers for a 3.2-mile run/walk through campus that starts with a moment of silence and release of a balloon arch composed of 32 white balloons.



Lauren Sheehan and James Budnick



Micheal Edwards with friends and family



Pictured: Anne Nichols (left and bottom right), Kelly Freudenberger (left and top right), Marigold Ernst (left and top right), Qian Cao (top and bottom right), and Qinghui Mu (bottom right)

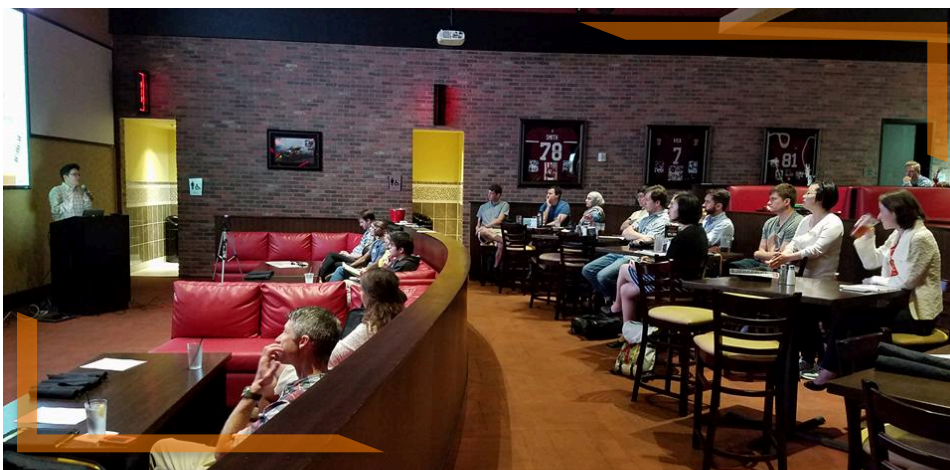
Stamps Inaugural National Day of Service

Vet Med Stamps Scholars participate in National day of service by collecting and donating animal supplies and gently used shoes to local shelter

Recipients of the Stamps Scholarship participated in the first Stamps National Day of Service. Stamps Scholars at 18 colleges and university campuses across the country, including the Vet Med GSA graduate programs, selected local organizations to support by volunteering on April 16.

From April 16 through May, the college's Stamps Scholars held an animal supply drive and collected new or gently used shoes to benefit the Giles Animal Rescue. At the end of the event, multiple bags of cat and dog food/treats, numerous towels, dog toys, cat toys, leashes and collars, and a travel crate were donated to the Giles Animal Rescue. Additionally, around 100 pairs of shoes were donated to the Giles Animal Rescue shoe drive fundraiser. Donated shoes are redistributed to partners through Funds2Orgs (funds2orgs.com) and used in developing nations for impoverished people to start their own businesses.

A Day of Innovation and Inspiration in Regenerative Medicine



On May 25, the Regenerative Medicine Interdisciplinary Graduate Education Group (RM-IGEP) met for the Third Annual Regenerative Medicine Retreat. During the retreat, faculty and students share ideas and suggestions to help advance ongoing research within the program. They also present their current research and have discussions pertinent to all aspects of regenerative medicine.

Regenerative medicine is a rapidly growing field focused on restoring tissue structure and function following tissue injury or disease. This new program at the university brings together faculty and students from Veterinary Medicine, Engineering, Business, and Science and Technology into a cohesive learning environment to address tough questions and challenges in regenerative medicine. On the plus side, the graduate students have the opportunity to gain unique perspectives and skills across the entire Virginia Tech campus.

Also during the retreat, the group enjoyed a lecture from invited guest speaker Kiho Lee. He is a faculty member in the Department of Animal and Poultry Sciences and focuses on early embryonic development in pigs. Of particular interest, is his work and expertise in genetic engineering utilizing CRISPR/CAS9 technology. For the retreat, Lee spoke about his expertise in relation to how these new technologies can be utilized in regenerative medicine applications.



For more information about the Regenerative Medicine Interdisciplinary Graduate Education Program: <http://www.regenmed.vetmed.vt.edu/>



Regenerative Medicine Interdisciplinary Graduate Education Program



First Town Hall Meeting

At the conclusion of the college's first Wellness Week, students had an opportunity to have a stress-free opportunity to ask administrators some important questions

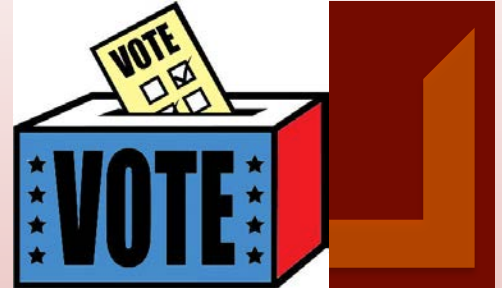
April 4, 2016 marked the inaugural town hall meeting between all students of the college and college administrators, including Dean Cyril Clarke, Associate Dean of Professional Programs Jennifer Hodgson, Senior Associate Dean of Research & Graduate Studies Roger Avery, and Population Health Sciences Interim Department Head Kerry Redican. The meeting was inspired by similar events at other colleges that bring students together as a community to foster better communication – both among students in different programs and between students and administration.

The town hall meeting began with a casual social hour over appetizers provided by SCAVMA, then moved on to a more formal question and answer session. While an anonymous survey distributed to the student body in advance had generated quite a few questions, there was no shortage of discussion topics and students willing to take to the microphone. Major points brought up included the new DVM curriculum – how it would affect current students and impact the ability of students in other programs to take DVM courses. Hodgson outlined the new curriculum schedule and explained that mapping of MPH and Ph.D. courses within the new veterinary curriculum was still in process. Likewise, mental health and wellness was a major concern voiced amongst students. The dean referenced his recent letter acknowledging the problems with mental health wellness amongst our community and other administrators explained as awareness has increased, changes are slowly being incorporated into the college. These include having greater counselor presence in the college, development of preventative programs, and incorporating these and more awareness into the curriculum.

There were many more questions and topics raised than could be addressed in a single evening. The questions from the anonymous survey not addressed during the town hall have been collected and are being worked on by student leaders and administrators to be distributed to the student body in the near future. The success of this first town hall meeting has pushed forward plans for another in the fall, with hopes it will become a bi-annual event.

Election Results

Say hello to the new Executive Board members of the Vet Med GSA!



President: Thomas Brickler
Vice President: Ashwin Ramesh
Secretary: Giulio Menciotti
Treasurer: Jimmy Budnick
Event Planner: Lauren Sheehan
SCAVMA Representative: Amanda Hazy
Resident Representative: Cory Hanks
Main Campus GSA: Ashwin Ramesh and Maria Cristina Villafranca

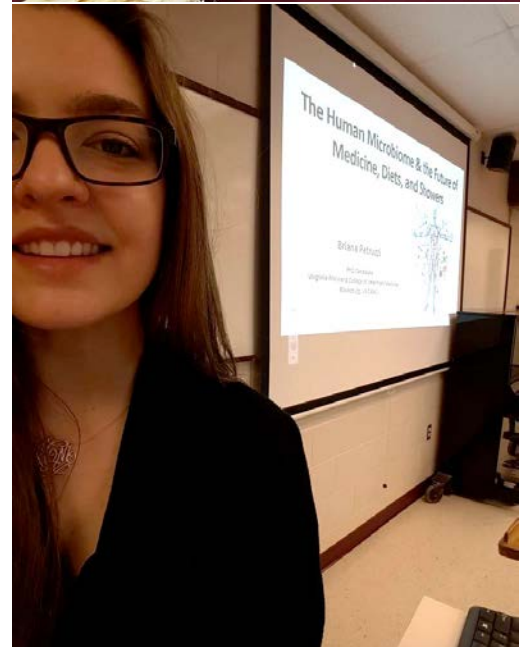


Continued Participation in Community Outreach Events from Vet Med Graduate Students

Vet Med GSA students continue to promote and encourage interest in science, technology, engineering, and math (STEM) careers through community outreach events

The graduate students with the Veterinary College continue their efforts to increase interest in careers in STEM fields through multiple community outreach activities during the spring semester:

- In addition to a educational booth, the graduate students participated as judges for the annual science fair held at Gilbert Linkous Elementary School in Blacksburg, Virginia on March 16.
- Brianna Petruzzi and Nicholas Catanzaro participated as guest lectures for the Anatomy Conference for middle school students from a local county on April 7.
- April 9th was a busy day for outreach: Maria Cristina Villifranca participated as a judge for the Virginia State Science and Engineering Fair for high school students held in Lexington, Virginia at the Virginia Military Institute. The annual Open House for the veterinary school was also held on April 9, and the Vet Med GSA had an educational and informational booth with DNA extraction experiments for visitors.
- On May 20, Miranda Vieson participated in career day at Monroe Elementary School in Richmond, Ohio and spoke about veterinarians in research.



Pictured: Miranda Vieson (left), Angela Ives and Amanda Hazy (top right), and Brianna Petruzzi (bottom right)

RECENT PUBLICATIONS

- Brickler, T., Grisham, K., Meza, A., Coutermarsh-Ott, S., Williams, T., Rothschild, D., Allen, I.C., Theus, M. "Non-essential role for the NLRP1 Inflammasome complex following traumatic brain injury." *Mediators of Inflammation*. (03/24/16; In Press). IF: 3.236.
- Coutermarsh-Ott, S.L., Simmons, A., Capria, V., LeRoith, T., Wilson, J.E., Heid, B., Washington, C., Dervisis, N., Qin, Q., Hontecillas-Magarzo, R., Bassaganya-Riera, J., Allen, I.C. "NLRX1 Suppresses Tumorigenesis and Attenuates Histiocytic Sarcoma through the Negative Regulation of NF-κB Signaling." *Oncotarget*. (03/28/16; In Press). IF: 6.63.
- Coutermarsh-Ott, S.L., Eden, K., Allen, I.C. "Beyond the Inflammasome: Regulatory NLR Modulation of the Host Immune Response Following Virus Exposure." *Journal of General Virology*. (In Press). IF: 3.23.
- Ringel, V., Allen, I.C. (2016). "The Application of Nanotechnology to Gastrointestinal Cancers." In *Gastrointestinal Cancers: Prevention, Detection and Treatment*, edited by Amit Tyagi and Sahdeo Prasad. New York: NOVA Science Publishers. (In Press).
- Qian M. Cao, Sakthivel Subramaniam, Yan-Yan Ni, Dianjun Cao, Xiang-Jin Meng. The non-structural protein Nsp2TF of porcine reproductive and respiratory syndrome virus down-regulates the expression of Swine Leukocyte Antigen class I. *Virology*, Volume 491, Issue null, Pages 115-124.
- Mingshun Zhang, Donglei Sun, Gongguan Liu, Hui Wu, Hong Zhou, and Meiqing Shi. "Real-time in vivo imaging reveals the ability of neutrophils to remove *Cryptococcus neoformans* directly from the brain vasculature." *J. Leukoc. Biol.* 99:467-473; doi:10.1189/jlb.4AB0715-281R.

PROGRAM DEPARTMENT

BIOMEDICAL AND VETERINARY SCIENCES

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ADMINISTRATIVE COORDINATOR

- Cyndi G. Booth

GRADUATE STUDENT COORDINATOR

- Becky Jones

GRADUATE STUDENT ASSOCIATION OF

VMCVM

PRESIDENT	- Grant Waldrop
VICE PRESIDENT	- Brianna Petruzzi
TREASURER	- James Budnik
SECRETARY	- Angela Ives
EVENT COORD	- Nicholas Catanzaro
CAMPUS GSA REPS	- Brianna Petruzzi
	- Kelly Freudenberger
GAC REPS	- Miranda Vieson
	- Thomas Brickler



Virginia-Maryland
College of
Veterinary Medicine