Dear VMD-PhD Alumni and Students,

Greetings from the Penn VMD-PhD program! OK, so I missed the Spring 2020 newsletter for obvious reasons. But at least the Fall 2020 newsletter is here. In mid-March Penn went into a dramatic lockdown due to the Covid-19 pandemic. That curtailed 90% of research activities making us all scramble for maintaining some research and adapting to a virtual teaching world. Restrictions were eased to 50% in early summer, and moved to essentially full research activity in the Fall as long as proper PPE and social distancing were maintained. This required shift work in some labs, and our teaching mission remained nearly all in a virtual format. The May 25 murder of George Floyd in Minneapolis, as well as other events sparked massive protests in Philadelphia, accompanied by some opportunistic rioting and looting. All the above was followed by a contentious election season that made 2020 either a year to remember, or to forget depending on your perspective. The closest thing I can compare 2020 to is 1968, for those of us old enough to remember. But this year is clearly unique, and due to my pathological optimism, I have hopes that this year will be remembered as one in which our nation made some progress in addressing systemic injustices. Through it all, I am proud of how Penn, the School of Veterinary Medicine, and our VMD-PhD program has carried on.

In this newsletter you will learn about:
- Incoming student information.
- Updates on PhD defenses, graduations, recent student publications, and recent student awards.
- Many updates from our alumni.

In other activities, the annual Combined Degree Retreat was a virtual event in August, and the annual Veterinary Combined Degree Symposium was virtual as well. Notably, the Penn Vet Student Research Day was cancelled last March, as was our Annual BBQ. Sadly, this will be the first year in 26 years that the annual Christmas Dinner Party will not be held at my home. We are now entering a new admissions cycle and admissions interviews will be held in January 2021 by a virtual mechanism. With the recent news of multiple vaccines becoming available in December this year, there is hope of an end to continuous isolation, and the power to escape from Zoom cubicles.

We wish you all the best as 2020 comes to a close, and we look forward to a fantastic 2021!

Sincerely,
Michael Atchison, Ph.D.
Director, VMD-PhD Program

http://www.vet.upenn.edu/education/academics-and-training/vmd-phd-program
Incoming VMD-PHD Students

Alexander Post (Year 1)
Queens University, Ontario
CAMB Development, Stem Cell, and Regenerative Biology
Alex graduated from Queens University in May 2018, then completed an MS degree in Medical Science in August 2020 from the University of Toronto. He has performed research in multiple settings, first at the Hospital for Sick Children in Toronto with Dr. Peter Gilgan studying protein purification, and antimicrobial functions and properties of embryonic stem cell-derived macrophages. Subsequently he worked with Dr. Mingyao Liu at Toronto General Hospital on the effect of adaptor protein XB130 on skin inflammation and tumorigenesis. He also worked with Drs. Graeme Smith and Jonathan Ausman on the effects of carbon monoxide on mitochondrial dynamics in human placenta, and finally for his Masters research, he worked with Dr. Michael Fehlings at Toronto Western Hospital, on the effect of conditional GDNF expression in induced pluripotent stem cell neural progenitor cells using cell state-specific promoters following spinal cord injury.

Recent PhD Defenses

Student: Bailey Bauman  
Date: July 17, 2019  
Title: Pathways to pathologic retinal iron accumulation: blood, guts, and the immune system.  
Mentor: Joshua Duniaef  
Graduate Group: NGG

Student: Robyn Allen  
Date: November 21, 2019  
Title: FOP-ACVR1 Signals by Multiple Modalities in the Developing Zebrafish.  
Mentor: Eileen Shore and Mary Mullins  
Graduate Group: CAMB DSRB

http://www.vet.upenn.edu/education/academics-and-training/vmd-phd-program/vmd-phd-alumni-profiles  
Find your profile, and send us feedback!
Student: Rebecca Rosenthal  
Date: June 3, 2020  
Title: T-bet Expressing B Cells with Distinct Residency and Functional Characteristics Give Rise to Plasma Cells.  
Mentor: Michael Cancro  
Graduate Group: IGG

Student: Sondra Calhoun (Lavigne)  
Date: July 19, 2020  
Title: Antimicrobial use and resistance: intersections of companion animal and public health.  
Mentor: Theoklis Zaoutis  
Graduate Group: Epidemiology and Biostatistics

Student: Gregory Sousa  
Date: November 23, 2020  
Title: Dissecting the melanization immune response in the malaria vector Anopheles gambiae.  
Mentor: Michael Povelones  
Graduate Group: CAMB MVP

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Graduations

Elinor Willis
Date: May, 2020
Title: The effect of maternal antibodies on anti-viral immunity in infant mice.
Mentor: Scott Hensley
Graduate Group: CAMB-MVP
Elinor is pursuing a Residency in Pathology at the University of Pennsylvania

Amanda Samuels
Date: May, 2020
Title: Non-canonical Functions of the Bacterial SOS Response.
Mentor: Rahul Kohli
Graduate Group: CAMB-MVP
Mandie is pursuing an equine internship at the University of Georgia.

Student Honors, Awards, Publications

Current NIH F-grant awardees
Monica Jimenez
F31 DK122677
The microbiota regulates the progression of obesity through a highly conserved family of micro RNAs.

Suna Li
F31 DE029361
The role of the lateral habenula in central pain and itch processing.

Nate Sotuyo
F31 NS108622
Treatment of epilepsy and associated comorbidities using stem cell-derived interneurons to correct circuit dysfunction in an animal model of Dravet Syndrome.

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Elise Peauroi
F30 AI149864
The novel innate immune-antagonistic effects of ectromelia virus C15 protein.

Ashley Vanderbeck
F30 AI161873
Role of Notch signaling during the early priming and activation of alloreactive T cells.

Publications 2019-2020

2019


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http://www.vet.upenn.edu/education/academics-and-training/vmd-phd-program
ALUMNI UPDATES

Member, Division of Immunobiology
Associate Professor
Department of Pediatrics
Cincinnati Children’s Hospital

Theresa has a new publication:

Wu S., Hashimoto-Hill S., Woo V., Eshleman E., Whitt J.,
Engleman L., Karns R., Denson L.A., Haslam D., and
Alenghat T. (2020). Microbiota-derived metabolite
promotes HDAC3 activity in the gut. Nature.

Jessica Bertout  VMD (2010), PhD (2008)
Co-Founder
CASTR Alliance

Jessica recently co-founded a veterinary clinical research organization called
CASTR Alliance which provides clinical research services for sponsors and
partners interested in running translational studies in companion animal
patients. CASTR Alliance provides study design and protocol development,
through full study execution. Excitingly, they initiated their first study in late
August on the safety, efficacy, and pharmacokinetics of gefitinib in canine
osteosarcoma. Due to significant overlap between canine and pediatric
osteosarcoma, positive results would have the potential not only to benefit
canine patients, but also to set a precedent for the evaluation of such
combinations in clinical trials involving human patients.

She also recently adopted a Newfoundland puppy named Rookie. He has
surpassed the weight and size of her other three children at this point,
weighing in around 115 lbs at 10 months. Isabelle (12y), Sam (10y) and
Charlie (7y) are loving the extra company at home as they continue their
remote school programs.

Recent publication:
Gundle KR, Deutsch GB, Goodman HJ, Pollack SM, Thompson MJ, Davis JL, Lee MY, Ramirez DC,
Kerwin W, Bertout JA, Grenley MO, Sottero KHW, Beirne E, Frazier J, Dey J, Ellison M, Klinghoffer
RA, Maki RG. (2020) Multiplexed Evaluation of Microdosed Antineoplastic Agents In Situ in the Tumor
Microenvironment of Patients with Soft Tissue Sarcoma. Clinical Cancer Research 26 (15) 3958-3968
DOI:10.1158/1078-0432.CCR-20-0614

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Veterinary Medical Officer
Food and Drug Administration

Personal update:
Abby married John Bradley on September 12, 2020!

Mary Robinson
Director, PennVet Equine Pharmacology Lab
Assistant Professor
Clinical Studies, New Bolton Center
University of Pennsylvania

Mary was recently appointed tenure-track Assistant Professor in Pharmacology at Penn Vet in the Department of Clinical Studies New Bolton Center, and she is a diplomat of the American College of Veterinary Clinical Pharmacology. Her contract with the Commonwealth of Pennsylvania for equine drug testing was renewed July 1, 2019 through April 19, 2022 for $10.9 million.

Catherine Brinkley
Associate Professor
College of Agriculture and Environmental Science
University of California, Davis

Katie earned tenure officially this summer! She also writes that it was delightful to see so many people at both PennDesign and PennVet when she was a speaker in the opening session at the Farm of the Future event.

- Catherine Brinkley, UC Davis
  - The One Health sustainability paradigm and planning for healthy communities and food systems

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Scientist II
Repertoire

For the past couple of years, Rebecca has been establishing herself clinically, but she is now excited to return to a primarily research role. In January she will begin a new position as Scientist II in the Boston area company, Repertoire. She will continue to do part time ER moonlighting at Mass Vet Referral Hospital.

Postdoc
University of Washington

Jeffrey recently received the prestigious Helen Hay Whitney Foundation postdoctoral fellowship!

Upcoming Events:

VMD-PhD Admissions Interviews
January, 2021

Penn Vet Student Research Day
March, 2021

We want to know....
New position, promotion, patent, publication, etc.? Please share your news!
vmstp@vet.upenn.edu

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Yong No
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