Dear VMD-PhD Alumni and Students,

Greetings from the Penn VMD-PhD program! It has been a busy year since I last communicated via this newsletter in Fall 2020. You all were awesome in answering the survey for the competitive renewal of our NIH MSTP grant. Your response rate was amazing! 91%!!! You all Rock! We learned much from that survey and are so grateful for your efforts. Many, many thanks!

The past year at PennVet was action-packed working through Covid-19 safety measures, developing a completely new curriculum to be roll out in Fall 2022, and managing research, teaching, and program activities. For me it was also a busy year of grant writing and I was fortunate to pick up a couple of new R01s. This year will also be full of grant writing, but this time it will be T-grants (MSTP T32, VMD-PhD T32, and T35 for vet student research). Three T-grants in one year will be intense!

In terms of the past year, the annual Combined Degree Retreat was a virtual event in August, as was the National Veterinary Combined Degree Symposium. For the second year the annual student research BBQ was cancelled, and for the second time in 27 years the annual Christmas Dinner Party at my home was not held. However, the Penn Vet Student Research Day will fortunately return on March 18, 2022. We are now entering a new admissions cycle and admissions interviews will be held in January 2022, once again by a virtual mechanism. Being a perpetual optimist, I see reasons for hope. Penn is 97-98% vaccinated, and Covid-19 cases at PennVet have been very low. Vaccines and better medicines are available so hope is on the horizon despite new variants and continuing risk. I pray that we will turn the corner on a difficult two years.

In this newsletter you will learn about incoming students, PhD defenses, graduations, recent student publications, recent student awards, and many updates from alumni.

We wish you all the best as 2021 comes to a close, and we look forward to a healthy and prosperous 2022!

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

Raegan Petch (Year 1)
Colorado State University
CAMB Microbiology, Virology, and Parasitology
Raegan graduated from Colorado State University in May 2021 with a BS in Microbiology. She completed multiple research projects with Dr. Susan VandeWoude and Dr. Erick Gagne. These projects included the study viral isolates from Pumas in California, the spillover of Feline Leukemia Virus from domestic cats into wild pumas in North America, and the prevalence of Hapadnaviruses in North America domestic cats.

Josetta Adams (Year 2)
City University of New York and Tufts University
Immunology Graduate Group
Josetta graduated from CUNY in May 2016 earning a BS degree in Biology. She subsequently earned a Masters Degree in Infectious Disease and Global Health from Tufts University. Josetta gained extensive research experience at MIT working with Dr. Darrell Irvine as a research technician. Projects included production of replicon nanoparticles and in vivo imaging, analysis of soluble chimeric antigen receptor (CAR) variants by FLPC, production and evaluation of CARs, preparation of vaccines, and studying humoral immunity against HIV.
Recent PhD Defenses

We’ve had 3 PhD defenses since the last newsletter in Fall 2020.

Student: Gregory Sousa  
Date: November 23, 2020  
Title: Dissecting the melanization immune response in the malaria vector *Anopheles gambiae*.  
Mentor: Michael Povelones  
Graduate Group: Cell and Molecular Biology - MVP

Student: Ian Penkala  
Date: February 16, 2021  
Title: Interrogating alveolar epithelial type 1 cell plasticity across their lifespan  
Mentor: Edward Morrisey  
Graduate Group: Cell and Molecular Biology - CBP

Student: Sherrie Xie  
Date: April 22, 2021  
Title: Enhancing electronic health record data for population health studies.  
Mentor: Blanca Himes  
Graduate Group: Epidemiology/Biostats

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Graduations
Four students graduated in Spring 2021!

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

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

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: Immunology

Student: Sondra Calhoun (Lavigne) VMD (2021) PhD (2020)
Date: July 19, 2020
Title: Antimicrobial use and resistance: intersections of companion animal and public health.
Mentor: Theoklis Zaoutis
Graduate Group: Epidemiology and Biostatistics

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Research Day Oral Presentation Awards

Student: Jaclyn Carlson
Title: Collagen V Haploinsufficiency Results in Delayed Healing and Altered Wound Matrix Post-Injury in Murine Tendons
Mentor: Dr. Louis Soslowsky
Graduate Group: Bioengineering

Student: Megan Clark
Title: Remodeling the Electron Transport Chain in Macrophages by a Peptide-miRNA Axis.
Mentor: Dr. Jorge Henao-Mejia
Graduate Group: Immunology

Student: Martha Stone
Title: Chemogenetic Activation of Orexin Neurons Accelerates Emergence from Isoflurane Anesthesia
Mentor: Dr. Max Kelz
Graduate Group: Neuroscience

Student: Brinkley Raynor
Title: The impact of the COVID-19 pandemic on rabies reemergence in Latin America.
Mentor: Dr. Ricardo Castillo-Neyra
Graduate Group: Epidemiology/Biostatistics

Student: Ariel Shepley-McTaggart
Title: Identification of a SARS-CoV-2 E/Host ZO-1 Interaction: Implications for Tight Junction Damage in Human Lung Epithelial Cells
Mentor: Dr. Ronald Harty
Graduate Group: Cell and Molecular Biology-MVP

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Current NIH F-grant awardees

Student: Monica Jimenez
Graduate Group: Cell and Molecular Biology – GE
Mentor: Dr. Jorge Henao-Mejia
F31 DK122677
The microbiota regulates the progression of obesity through a highly conserved family of micro RNAs.

Student: Suna Li
Graduate Group: Neuroscience
Mentor: Wenqin Luo
F31 DE029361
The role of the lateral habenula in central pain and itch processing.

Student: Nate Sotuyo
Graduate Group: Neuroscience
Mentor: Stewart Anderson and Ethan Goldberg
F31 NS108622
Treatment of epilepsy and associated comorbidities using stem cell-derived interneurons to correct circuit dysfunction in an animal model of Dravet Syndrome.

Student: Elise Peauropi
Graduate Group: Cell and Molecular Biology - MVP
Mentor: Laurence Eisenlohr
F30 AI149864
The novel innate immune-antagonistic effects of ectromelia virus C15 protein.

Student: Ashley Vanderbeck
Graduate Group: Immunology
Mentor: Ivan Maillard
F30 AI161873
Role of Notch signaling during the early priming and activation of alloreactive T cells.

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Publications 2020-2021

2020


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

Xie, S., Hubbard, R.A., and Himes, B.E., 2020, Neighborhood-level measures of socioeconomic status are more correlated with individual-level measures in urban areas compared with less urban areas. Ann. Epidemiol. 43:37-43.e4 PMCID: PMC7160852


2021


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ALUMNI UPDATES


Todd was promoted to Associate Professor in the Department of Biochemistry and Molecular Biology on July 1, 2021! In December 2020, he was also awarded the Angelo Pinto Basic Science Educator Award at Drexel University College of Medicine. This award is presented to a faculty member who has demonstrated commitment and excellence to the education of graduate and/or medical students through innovative educational programs, serving as a teacher, a leader, mentor and role model to students and colleagues alike.


In May, Greg started a new position as Senior Director, Head of Safety Assessment, at Kallyope, a growing biotech company in NYC. Last year, he had a new publication:


Diligence Matters, LLC

The start-up medical device company that Robert founded in 2001 (and left in 2017) went public this year. Their product gained FDA approval for the treatment of chronic heart failure in 2019. Since 2019 Robert has been doing business development work full time for a Paris-based, veterinarian-led company that provides preclinical evaluation services for medical device and biotechnology companies.


Company page: https://urldefense.com/v3/__http://www.diligencematters.com__;!!IBzWLUs!DDZgLTYaBazNEaW6GurGXFOYht4R89F1971SzMjfrVC DsvuKnm2YHfgRfuQeRc_N0zpp$

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

Jessica has been watching pandemic developments closely, as she is on her third attempted to reschedule of a trip to France to see her family for the first time in two years.

According to Jessica: “Things have been going well out here. Steve still enjoys his job as an anesthesiologist despite the pandemic. All three kids are very excited to be back full-time in school and sports. Isabelle (13) got her black belt in karate mid-pandemic, and the boys, Sam (11) and Charlie (8), are solidly immersed in baseball. Isabelle and I also ride about 4-5 times per week, anytime we can get out to the barn. During the pandemic, we adopted Rookie, a sweet, mellow Newfoundland, who is now 2 years old. As a family, we love to hike, ski, and travel, both locally, as we continue to discover new parts of the Pacific Northwest, and beyond, as we finally get to visit family again (fingers crossed)!”

“Business picked up after the lock down for CASTR Alliance. Starting a business as the pandemic shut everything down was quite an interesting experience! But now, we have a couple studies running and several in the planning stage, keeping my business partner Jim Perry and me busy and happy!”

A couple recent publications:
Veterinary Clinical Research:
PMCID: PMC8355561
Human Clinical Research (from my time at Presage):

Lead Veterinary Medical Officer
Food and Drug Administration

Abby received a promotion to Team Lead in her pharm/tox branch at the FDA. “Starting January 1st, I am a Lead Veterinary Medical Officer in the Office of Tissues and Advanced Therapies, Center for Biologics Evaluation and Research, FDA.”

AND: She had a baby! Margaret Ruth "Maisie" Shearin-Bradley, born 8/2/21 at 3:18 am, 6 lbs 7 oz and 19.5" long.

http://www.vet.upenn.edu/education/academics-and-training/vmd-phd-program
Associate Professor  
College of Agriculture and Environmental Science  
University of California, Davis  

Katie says: “I got TENURE!!!! in 2020... but I am just going to keep celebrating until the pandemic is over.”  

Her kids (11 and 7) report that public school is WAY better than homeschooling because their teachers are "qualified". Katie apparently is not sure how to take that- but is happy they are happy and healthy- and now vaccinated!!!  

Katie now directs the Center for Regional Change- a research center at UC Davis in the College of Agriculture and Environmental Sciences which focuses on engaged research that centers social justice. She is looking forward to her first sabbatical in 2022-3.

Assistant Professor  
Department of Clinical Studies New Bolton Center  
University of Pennsylvania School of Veterinary Medicine  

Laurel recently earned a perfect score on her NIH K23 grant, which, barring any government shutdowns, should be funded in 2022. Her kids are also very happy to be back in school, and Laurel is thrilled that they are back too. She is braving travel with a trip to Chicago in December for the Conference for Research Workers in Animal Disease, for which she is on the organizing committee.

Former Gilbert S. Kahn Dean of Veterinary Medicine  
School of Veterinary Medicine  
University of Pennsylvania  

Joan says she is having fun and that, “Granddaughters are interesting.” She wrote a grant for their violin school which brought back fond memories! Joan says her own violin playing is still far far worse than the 10-year-old and now the 7-year-old is catching up. She says her downward dog is getting pretty darn good in her yoga class!

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Professor of Pathology
Director Goodman Center for Comparative Medical Genetics
School of Veterinary Medicine, University of Pennsylvania
Stokes Investigator
Children's Hospital of Philadelphia

John says he is still juggling pandemic issues. BUT, John says “I just got another 5 year renewal for one of my grants - so NIH won’t let me retire yet.”

Chief Scientific Officer,
Cadence Neurosciences, Inc

Doug is CSO of Cadence Neuroscience, a neuro-implant medical device startup developing a novel therapy for drug resistant epilepsy that was licensed from Mayo Clinic. Doug says, “We are making excellent progress developing our therapy system, solidifying our clinical/regulatory path, and are planning our investigational study for FDA approval. We will be starting our first clinical study on a key component of the system this December at Mayo Clinic.”

Board Member: Not One More Vet
Board Member: Pride VMC

Erika was recently nominated as a board member to Not One More Vet and accepted as a board member to the Multicultural Veterinary Medical Association, and she is a co-author/project co-lead on Pride VMC's Gender Identity Bill of Rights (https://pridevmc.org/gender-identity-bill-of-rights/). They recently got fully funded to write the Gender Identity Guide, a more expansive document regarding human rights in the work place and academic settings for Trans, Non-binary and Gender Nonconforming individuals in veterinary medicine. Look for NOMV and MCVMA doing public announcements.
UPCOMING EVENTS

VMD-PhD Admissions Interviews
January, 19 and 20, 2022

Penn Vet Student Research Day
March 18, 2022

We want to know....
New position, promotion, patent, publication, etc.? Please share your news!
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