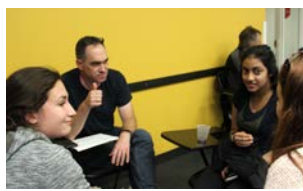




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NEWSLETTER



The new chair at NBC

Katrin Hinrichs, DVM, PhD, Diplomate ACT
Harry Werner Endowed Professor of Equine Medicine and Chair
of the Department of Clinical Studies - New Bolton Center,
University of Pennsylvania School of Veterinary Medicine

Katrin Hinrichs, an internationally renowned expert in equine reproductive medicine, arrived on March 1st to take up her role as Chair of Clinical Studies - New Bolton Center -- just as the COVID-19 pandemic was about to shut down the School. This unfortunate course of events prevented Penn Vet faculty and staff from meeting and welcoming Dr. Hinrichs. Recently, Vice Dean for Research and Academic Resources, Dr. Phillip Scott, interviewed Dr. Hinrichs.

Dr. Hinrichs received her DVM from the School of Veterinary Medicine at the University of California at Davis in 1978. She completed her residency in Reproductive Studies at Penn Vet’s Hofmann Center for Animal Reproduction at New Bolton Center, where she also served as lecturer. Dr. Hinrichs entered Penn’s graduate program, earning a Ph.D. in Biomedical Sciences in 1988. She subsequently joined the faculty at Tufts University’s School of Veterinary Medicine as an Assistant then Associate Professor, where she headed the Theriogenology and then Large Animal Clinical Sciences sections. Dr. Hinrichs later went on to join the faculty at Texas A&M University in the College of Veterinary Medicine & Biomedical Science’s Department of Veterinary Physiology and Pharmacology, where she was Professor and Patsy Link Chair in Mare Reproductive Studies. In 2015 she was named a Regents Professor at Texas A&M, the highest honor bestowed by the Texas A&M University System on faculty members. When the Department Chair position opened up at New

[Phillip Scott interviews Katrin Hinrichs, chair at NBC](#)

<https://youtu.be/u6eXYivBwHU>

Bolton Center, she was inspired to return to Penn Vet, the institution that launched her career in academia and set her on a course as a specialist in equine assisted reproduction.

As an investigator, Hinrichs has authored or co-authored more than 325 research publications. Among her achievements are producing the first cloned horse in North America and developing the medical standard for effective intracytoplasmic sperm injection (ICSI) and *in vitro* culture for embryo production in horses.

Over the past four decades, Hinrichs has received many awards and honors. These include: *Doctor Honoris Causa* in Veterinary Medicine from the University of Copenhagen (2007); Outstanding Faculty Award from Tufts University (1997); Richard H. Davis Teaching Award from Texas A&M (2001); Texas Veterinary Medical Association Faculty Achievement Award (2013); Theriogenologist of the Year from the American College Theriogenologists (2003); the Distinguished Achievement Award in Research from Texas A&M (2019); the Alumni Achievement Award from the University of California, Davis (2020), and notably, the Simmet Prize for Assisted Reproduction from the International Congress of Animal Reproduction (2016), the most prestigious award in the field of animal reproductive science.

Since her arrival, Dr. Hinrichs has worked tirelessly to provide strong leadership during the Phase I and II research resumption effort at Penn Vet. Together with her colleagues, Dr. Hinrichs has planned and implemented pandemic-related research resumption practices at New Bolton Center that have ensured that research is able to move forward in a safe manner. Hopefully, we will soon be able to get together in person to welcome Dr. Hinrichs.

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Penn Vet Insectary

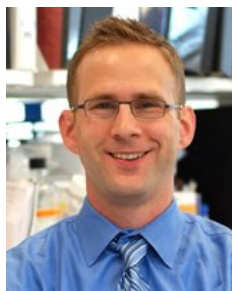
Dr. **Michael Povelones**, in the Department of Pathobiology, is deservedly proud of Penn Vet VMD/PhD student **Greg Sousa**, who has devised a new non-destructive assay for immune responses in mosquitoes based on quantifying their excreta (aka urine/feces). The technique avoids many of the technical challenges faced while working with mosquitoes and facilitated the identification and characterization of a new component of the mosquito melanization immune response. The assay is being used by other mosquito researchers since it was posted early on BioRxiv, and the authors speculate it may have applications in other insect disease vectors or food pests. Their paper, entitled “The CLIP-domain serine protease CLIPC9 regulates melanization downstream of SPCLIP1, CLIPA8, and CLIPA28 in the malaria vector *Anopheles gambiae*” is available online and ahead of print. <https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1008985>



Greg Sousa



Publications



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Nightly News—On NBC Nightly NEWS: The Working Dog Center <https://www.nbcnews.com/nightly-news/video/behind-the-scenes-with-dogs-being-trained-to-detect-covid-19-89411653944> Researchers at the University of Pennsylvania are training dogs to detect coronavirus by scent, a method which could potentially be used to conduct mass screenings in public spaces like airports or stadiums.



Meet a Mentor 2020

Meet-A-Mentor night has been held for several years *in person*. The event is held to connect research mentors with first and second year Penn Vet students to plan a basic, clinical or translational project for the coming year. A wide range of students find their way to a research laboratory through this process and the Summer Research Program. This year, due to the pandemic, the students are hosting a Zoom meeting where research faculty give five minute presentations and an opportunity for students to drop in *virtually* to ask questions. Grace Wheeler V'23 heads the planning for the October 27 event. A Google Form was circulated for registration.

Grace Wheeler, VMD Candidate, Class of 2023
SAVMA President
Veterinary School Representative, Inter-Professional Women's Council graceww@vet.upenn.edu

The McCabe Fund



Cristobal Navas De Solis



Mutian Niu

Cristobal Navas De Solis, LV, MS, PhD, assistant professor and Mutian Niu, MS, MS, PhD, assistant professor in the Department of Clinical Studies New Bolton Center have been awarded McCabe pilot funding for their project entitled "Injury prevention in equine athletes through mobile health and data analytics". Pilot funding is awarded to junior faculty conducting innovative basic or clinical biomedical/surgical research.



Biomedical Modeling Workshops

Free workshop series on using WinSAAM Biomedical modeling software—Exploration of Biomedical Data using models. Nine weekly presentations will be recorded for future open access. Each presentation will start with a 50 minute didactic component, followed by a 10 minute question and answer session and an optional 30 minute Virtual Lab. Presenters: [Dr. Raymond Boston](#) and [Dr. Darko Stefanovski](#), faculty at the University of Pennsylvania School of Veterinary Medicine. Link: [Register](#)

The **Atwood Library** is open 24/7

- Library staff will scan articles/chapters upon request (subject to copyright laws).
- Print books may be requested and picked up only at Van Pelt Library.
- Some library software available via link: [virtual computer lab](#)



Boris Striepen, PhD.,

professor of microbiology & immunology in the Department of Pathobiology was an organizer in the **Molecular Parasitology Meeting XXXI** held September 20-24 in a virtual format. Typically this

meeting is held in Woods Hole at the Marine Biological Laboratory with 350 people. During the pandemic 850 participated in the online meeting along with 250 presenters from around the world. The annual event is truly an expanded global meeting. <https://genetics-gsa.org/parasitology/>.



Ashley Boyle, DVM, associate professor in the Department of Clinical Studies New Bolton Center, has been awarded \$15,000, an Advancement in Equine Research Award from Boehringer Ingelheim to support her research proposal entitled “Equine guttural pouch microbiome in health and disease”.



Dr. **Shelley Rankin**, Department of Pathobiology and Drs. **Dipti Pitta** and **Tom Schaer** from the the Department of Clinical Studies New Bolton Center are co-investigators.

PHASE II Research Resumption at Penn Vet

The Fall Phase II plan was developed to ensure the continued safe return to research, during the pandemic, and to meet the requirements outlined by the Provost’s Research Resumption plan. PennVet’s Research Restart Team that includes **Phil Scott, William Beltran, Montserrat Anguera, Chris Hunter, Boris Striepen, Igor Brodsky, Hannah Galantino-Homer, Ellen Puré, Oliver Garden, Katrin Hinrichs, Sparky Lok, Kim Kopple and Robert Schieri, Chris Phillips and Bryan Isola** continue to meet regularly to provide an overview and communication for faculty and staff on the general mandatory requirements: mask use is mandatory; all research activity that can be done remotely must continue to be done remotely; social distancing remains a requirement in all spaces; research space and general space must accommodate distancing requirements; and use of [PennOpen Pass](#) and tracing log-out forms are required.

National Academy of Medicine, Class of 2020

The National Academy of Medicine (NAM) announced during its annual meeting on October 19th, 2020 the election of 90 regular members and 10 international members that included Dr. **William A. Beltran, DVM, PhD, Dip. ECVO**, professor of ophthalmology and director of the Division of Experimental Retinal Therapies (ExpeRTs), Department of Clinical Sciences and Advanced Medicine (CSAM), School of Veterinary Medicine, University of Pennsylvania, Philadelphia. Dr Beltran has been recognized for his translational research that has provided the scientific community with several clinically relevant large-animal models of inherited retinal degeneration, which he has used successfully to test neuroprotective, optogenetic, and gene therapy strategies, which have led to clinical trials in people. Dr Beltran is the director of ExpeRTs—a division (in CSAM) dedicated to providing the necessary scientific and technical support to facilitate the development, testing and screening of new retinal therapies that can prevent blindness in humans and their animal companions. Election to the Academy is considered one of the highest honors in the fields of health and medicine. All sessions were recorded. *Link to the meeting:* <https://nam.edu/event/confronting-urgent-threats-to-human-health-society-covid-19-and-climate-change/?fbclid=IwARosQcoquwMI1lo4kQIMJLmJh8Q-Jmd5QMZzI4adNncexx7mxyd-q5XPnis>



Penn Today link: <https://penntoday.upenn.edu/news/five-penn-faculty-elected-national-academy-medicine>



In memory of: **Dean Robert Marshak** (1923-2020). Dean Marshak and his wife Margo, arriving at the 2018 Penn Vet annual research retreat at New Bolton Center. He was greeted by Dr. David Galligan. Dean Marshak continued to attend research retreats. See full story at: <https://www.vet.upenn.edu/about/who-we-are/dr-robert-marshak-in-memoriam> A more in-depth newsletter article on Dean Marshak will appear at a later date.

Dean Robert Marshak, wife Margo, and Dr. David Galligan

Recent Awards (direct costs)

Dan Beiting (co-PI)

Bill & Melinda Gates FDN
 Ensuring access and effective use of clinical and epidemiological datasets
 07/0120—6/30/22. \$238,182

Dan Beiting

Astarte Medical
 Integration of pre-term and term infant microbiome datasets from the public domain
 06/23/20—7/31/22. \$166,667

Tom Schaer

Thos. Jefferson Univ. (Sub contract)
 Plasma-based therapies for bone infection: A tripartite USA/Northern Ireland/Republic of Ireland consortium
 2/1/20—1/31/21 \$176,474

Dipti Pitta

PA Dept. of Agriculture—Understanding the contribution of Quorum Sensing signals in dissemination of antimicrobial resistance on PA dairy herds. 1/1/20—9/30/20 \$30,000

Dipti Pitta

PA Dept. of Agriculture—A Novel approach to improve productivity and reduce methane emissions based on bacteria-archaea networks in rumen of PA dairy cows. 1/1/20—9/30/20 \$30,000

Tom Parsons

PA Dept. of Agriculture
 Using tri-axial accelerometers (Fitbit-like devices) to improve sow health and welfare
 1/1/20—9/30/20 \$22,000

Christopher Lengner

NIH R01
 The basis for and function of enteroendocrine lineage plasticity in the intestinal DNA damage response
 5/5/20—4/30/24 \$283,499.00

Christopher Lengner

Calico Labs
 Forward genetic screening in colorectal cancer organoids
 8/01/20—7/30/22. \$153,000

Kotaro Sasaki

Commonwealth of PA
 Development and maturation of male germline stem cells
 6/1/19—5/31/23. \$109,443.

Michael Povelones

NIH R21
 Functional analysis of insect-specific adhesion in a model kinetoplastid
 06/01/20—05/31/22. \$300,358.00

Katie Walzer (Striepen Lab)

NIH F32. Elucidating the roles of transcriptional regulators during the *Cryptosporidium* life cycle
 08/1/20—07/31/23. \$202,062

Stephen Cole

McCabe Foundation—Tracking Resistance to Antimicrobials in Canine Environments): A Pilot Study to Investigate Contamination of Dog Raw Food Diets with ESBL and Carbapenem-resistant *Enterobacteriaceae*.
 07/1/20—06/30/21. \$30,233

Serge Fuchs

NIH R01 —Type I Interferon Pathway in Pancreatic Adenocarcinoma
 04/01/20—03/31/25. \$1,329,040

Serge Fuchs

NIH R01—Reactivation of type I interferon pathway to increase the efficacy of chemotherapy
 03/03/20—02/28/25 \$1,143,750



The **Penn Vet Research Newsletter** is distributed quarterly. Suggestions, comments, requests, and story ideas may be directed to: resnews@vet.upenn.edu

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