

News from the NCVP

SPRING 2022

People



NCVP Welcomes Dr. Verocai as New Board Member

The NCVP is thrilled to announce that **Dr. Guilherme** (Gui) Verocai has joined the Board! Welcome, Gui! Dr. Verocai was nominated by sitting members to serve on the NCVP Board after Dr. Tim Geary stepped down last Fall. And...Gui said yes! Gui is a Clinical Assistant Professor and Director of the Parasitology Diagnostic Laboratory in the Department of Veterinary Pathobiology at Texas A&M University College of Veterinary Medicine and Biomedical Sciences. At TAMU, Dr. Verocai also teaches veterinary students and mentors graduate students. His thriving research program focuses on parasite biodiversity and diagnostics, with a special interest in vector-borne and zoonotic nematodes.



Above: Dr. Gui Verocai, Clinical Assistant Professor and Director of the Parasitology Diagnostic Laboratory at TAMU. The NCVP welcomes Gui as an academic Board member!

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Gui is a diplomate of the American College of Veterinary Microbiologists (Parasitology). He earned his MV (DVM equivalent) and MS in Veterinary Parasitology from the Federal Rural University of Rio de Janeiro, Brazil. Following, he earned his PhD in Veterinary Medical Sciences from the University of Calgary, Canada. He then completed a postdoctoral fellowship at the Department of Global Health, University of South Florida, and was employed as an Assistant Research Scientist at the Department of Infectious Diseases, University of Georgia College of Veterinary Medicine before being hired at TAMU. Welcome Gui!

Dr. Lindsay Starkey Promoted to Associate Professor with Tenure at AU!



Accolades are in order for **Dr. Lindsay Starkey**, who was recently promoted to **Associate Professor with tenure** at Auburn University College of Veterinary Medicine. Outstanding, Lindsay – congrats! Lindsay was hired as an Assistant Professor at AU in May 2016. At AU, Lindsay is heavily involved in teaching Parasitology to 1st- and 4th-year veterinary students, vector-borne disease research, diagnostic parasitology, and parasitology consultations and outreach efforts. In 2020, Lindsay received the Zoetis Distinguished Teacher Award. Pictured left is Dr. Starkey dressed up as a lone star tick for a lecture to the veterinary students at AU on Halloween. *(Article continued on the following page)*

SPECIAL POINTS OF INTEREST:

- Board Member Updates
- Residents Brief Updates
- NCVP Participation at AAVP 2022 IRL
- NCVP Annual Fall Meeting IRL

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NCVP Resident parasite case discussions at AAVP 2022

NCVP 2022 4 specimen set

Recent NCVP Resident and grant recipient pubs

People Continued...



Dr. Kelly E. Allen to become Associate Principal Scientist (Clinical Research) at Merck Animal Health.

(article on Lindsay Starkey continued from the previous page)

Prior to being hired on at AU, Lindsay graduated with her PhD (2015) from the Oklahoma State University's College of Veterinary Medicine as the inaugural NCVP resident (sponsorship by Bayer). Her dissertational research focused on ehrlichiosis in dogs. She is a diplomate of the American College of Veterinary Microbiology (Parasitology) since 2015. Lindsay obtained her BS in Animal Science from the University of Arkansas in 2007 followed by her DVM from OSU-CVM in 2011.

Dr. Kelly Allen, Associate Principal Scientist at Merck

After a successful career at OSU-CVM Dr. Kelly Allen has decided to venture (back!) into industry. Congratulations to Kelly on her new position with Merck! Kelly will be an Associate Principal Scientist working



primarily in DeSoto, Kansas. Kelly served as NCVP Project Leader for several years and later joined as an NCVP Board member.

Kelly is originally from Athens, GA. She earned a BS in Microbiology at UGA and worked at Merial Ltd. (now BI) in Athens for several years while earning an MS from UGA's College of Veterinary Medicine. She then came to OSU-CVM where she earned a PhD in Veterinary Biomedical Science in 2010 and was hired on as a lecturer in Parasitology in 2011. In 2017, Kelly transitioned into an Assistant Professor position at OSU-CVM. At OSU she was heavily involved in research, teaching veterinary students, and mentoring graduate students. Her research program focused on emerging vector-borne parasites in the U.S. including Cercopithifilaria bainae and Trypanosoma cruzi. Best of luck on your new path, Dr. Allen!

Raving about our Residents...Brief Updates!

Listed below and on the following page are some highlights of recent activities and accomplishments of NCVP Residents.

- Carolyn Sobotyk de Oliveira, DVM, MSc, PhD, former Merck Resident received the Outstanding Postdoctoral Research Associate Award at TAMU.
 - MERCK Animal Health
- Kathryn Duncan, DVM, BI Resident and PhD candidate at **OSU-CVM** is finalizing her dissertation for her upcoming PhD defense and graduation this semester. How exciting!
 - Katy Martin, DVM, MPH, Elanco Resident and PhD student at **ISU** submitted a K08 grant application to NIH. Great work and fingers crossed!

(continued on the following page)







(Resident updates continued)

- Nicole Szafranski, DVM, Zoetis Resident and PhD student at UT was accepted into the TVMA Power of Ten Professional Development Program. What an honor!
- Timi Wu, DVM, DACVP, IDEXX Resident and PhD student at CU published a review paper with mentor Dwight Bowman on Toxocara canis in Trends in Parasitology. Nice job!
- Ranju Manoj, BVSc, MVSc, Merck Resident and Post-Doctoral student at CU began her 2-year training program in January under mentors Mani Lejeune and Dwight Bowman. You got this!



ZOETIS PETCARE WE TAKE CARE OF PETS, LIKE PETS TAKE CARE OF YOU!"

We are so happy to have you as Residents-keep up the awesome work!





NCVP Back In-Person at the 67th Annual AAVP Meeting!



Finally! We are beyond excited to see our AAVP colleagues this summer at the 67th Annual Meeting of the American Association of Veterinary Parasitologist (AAVP) in Snowbird, Utah. **This will be the first all in-person meeting in several years** and we could not have imagined a better place than the picturesque Rocky Mountains of Utah. **We look forward to gathering with our**

colleagues for fun, fellowship, and discussions of all things related to parasites. As we have done historically, NCVP will host a table complete with parasite SWAG and a demo of our next parasite specimen collection. Also, and in true AAVP tradition, NCVP will host Parasite Case Discussions with NCVP residents and other students presenting interesting, fun, surprising, and challenging cases of parasitic infections in animals. Please be sure to stop by our table and say hello!

Must See NCVP Clicker Case Series at AAVP!

Two years later, after virtual and hybrid sessions, we are back on track for an in-real-life clicker case session presented by NCVP Residents at AAVP 2022!

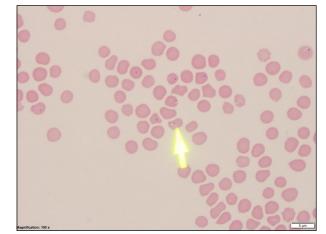
Brush up on your acumen and get ready for a finger clickin' good session!



NEWS FROM THE NCVP

New NCVP Specimen Kits Coming this Year!

Like previous years, the NCVP plans to assemble a new parasite **specimen kit** for veterinary parasitology educators in North America. This year's edition will feature **blood-borne pathogens**. Among others, featured organisms will include *Cytauxzoon felis*, the parasite causing bobcat fever in domestic cats, and *Anaplasma marginale*, the rickettsial agent causing anaplasmosis in cattle. The specimen set will be displayed on the **NCVP table** (actual this year—not virtual!) at the 2022 AAVP meeting, along with compound microscopes for slide examination. Be sure to stop by the table to check out the new specimens!





Above: Photomicrographs of stained blood films containing Cytauxzoon felis (left photo, arrow) and Anaplasma marginale (right photo, arrow). Blood smears with C. felis and A. marginale will be included in the 2022 NCVP Specimen Set to be distributed to educators in Parasitology at veterinary schools across North America. Be sure to check out the new specimen set on the NCVP table at AAVP 2022 in Snowbird!

Welcome Back to Stilly!

When the weather cools and the leaves begin to change, our thoughts turn to one thing – celebrating parasites with colleagues and friends! That's right, come October 2022 the NCVP Advisory Board and Residents will once again meet in person in lovely Stillwater, Oklahoma – home of Oklahoma State University and the National Center for Veterinary Parasitology. Our NCVP Residents will



share their research updates, commiserate over tales and travails of clinical parasitology training, and enjoy resident-targeted professional training. Our stellar Advisory Board will provide expert input on NCVP programs, including the difficult task of selecting which grants to fund from many strong options. And collectively we will all enjoy the camaraderie of being together (in the same room!) and talking parasitology, once again. <u>America's Greatest</u> <u>Homecoming</u> just got a little greater.

About the National Center for Veterinary Parasitology

Veterinary parasites impact human health and society in many ways. With the generous support of our sponsors, the National Center for Veterinary Parasitology works to promote greater understanding and control of parasitic diseases in animals through innovative partnerships between academia and industry. Housed in the College of Veterinary Medicine at Oklahoma State University, the Center strives to create future generations of veterinary parasitologists, conduct targeted research, and provide diagnostic and consulting services worldwide. To learn more, please visit <u>ncvetp.org.</u>



Select Publications from NCVP Residents and Grant Recipients

Below and on the following page is a very abridged list of just a few of the recent publications from **<u>NCVP residents</u>¹** and **<u>former grant recipients</u>²**. To request the full list or individual reprints, please send an email to ncvp@okstate.edu. Most importantly, feel free to send us your suggestions for future continuing education articles, review papers, or topics you think would be of interest to veterinarians and others in parasitology.

- Curry E, Prichard R². Development of rapid in vitro colorimetric enzymatic activity assay to differentiate macrocyclic lactone susceptible and resistant *Dirofilaria immitis* isolates. Vet Parasitol. 2022. 304:109696.
- Díaz-Delgado J, Cruz D, Sobotyk C¹, Hensley T, Anguiano M, Verocai GG, Gomez G. Pathologic features and molecular identification of parelaphostrongylosis in a sitatunga (*Tragelaphus spekii*). J Vet Med Sci. 2021. 83:1476–1480.
- **Duncan KT**¹, Grant A, Johnson B, Sundstrom KD, Saleh MN, Little SE. Identification of *Rickettsia* spp. and *Babesia conradae* in *Dermacentor* spp. collected from dogs and cats across the United States. Vector Borne Zoonotic Dis. 2021. 21:911–920.

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- Jesudoss Chelladurai JRJ, Jones DE, Brewer MT². Characterization of a P-glycoprotein drug transporter from *Toxocara canis* with a novel pharmacological profile. Int J Parasitol Drugs Drug Resist. 2021. 17:191–203.
- Kolapo TU, Bouchard É, Wu J, Bassil M, Revell S, Wagner B, Acker JP, Jenkins EJ². Copropolymerase chain reaction has higher sensitivity compared to centrifugal fecal flotation in the diagnosis of taeniid cestodes, especially *Echinococcus* spp, in canids. Vet Parasitol. 2021. 292:109400.
- Lection J, Delvescovo B, Percival A, Wu T¹, Southard T, Diel de Amorim M, Cheong SH. Malunion of an *in utero* metacarpal fracture in a standardbred mare presenting for dystocia. J Equine Vet Sci. 2021. 96:103321.
- Rodgers JS, Schaffer P A, Field CL, Ballweber LR, McGrew AK². Optimization of fecal flotations in marine parasitology and determination of the specific gravity of helminth eggs in pinnipeds. J Zoo Wildl Med. 2021. 52:949–955.
- Sundstrom KD, Lineberry MW, Grant AN, **Duncan KT**¹, Ientile MM, Little SE. Equine attachment site preferences and seasonality of common North American ticks: *Amblyomma americanum*, *Dermacentor albipictus*, and *Ixodes scapularis*. Parasit Vectors. 2021. 14:404.
- Upton KE, Sobotyk C¹, Edwards EE, Verocai GG. *Dirofilaria immitis* in an Asian small-clawed otter (*Aonyx cinereus*) from southeastern Louisiana, United States. Vet Parasitol Reg Stud Reports. 2022. 29:100703.
- Woodyard ET, Rosser TG, Stilwell JM, Camus AC, Khoo LH, Waldbieser G, Lorenz WW, Griffin M². (2022). New data on *Henneguya postexilis* Minchew, 1977, a parasite of channel catfish *Ictalurus punctatus*, with notes on resolution of molecular markers for myxozoan phylogeny. Syst Parasitol. 2022. 99:41–62.
- Wu TK¹, Bowman DD. *Toxocara canis*. Trends Parasitol. 2022. S1471-4922(22)00003-4.
- Zárate-Rendón DA, Salazar-Espinoza MN, Catalano S, Sobotyk C¹, Mendoza AP, Rosenbaum M, Verocai G. Molecular characterization of *Dipetalonema yatesi* from the black-faced spider monkey (*Ateles chamek*) with phylogenetic inference of relationships among *Dipetalonema* of Neotropical primates. Int J Parasitol Parasites Wildl. 2022. 17:152–157.

