

Kristi M. Miley, MSPH, PhD

University of South Florida College of Public Health
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AREAS OF INTEREST:

Parasitology, Medical Entomology, Vector-borne Disease, Virology, Disease Surveillance and Control

EDUCATION:

- 2017-2020 University of South Florida, Ph.D. in Public Health - *Global Communicable Diseases*: PhD under the direction of Dr. Thomas R. Unnasch. Dissertation entitled “*Spatial and Temporal Determinants Associated with Eastern Equine Encephalitis Virus Activity in Florida*”.
- 2014-2017 University of South Florida, Master of Science in Public Health - *Global Communicable Diseases*: MSPH under the direction of Dr. Thomas R. Unnasch. Thesis entitled Thesis “*The Effect of Antigen Polymorphisms on Serological Antibody Detection Assays Based Upon the Onchocerca volvulus 16kDa Diagnostic Antigen (Ov16)*”.
- 2007-2010 University of South Florida, Tampa - Bachelor of Science in Biomedical Sciences
- 2005-2007 Pasco Hernando State College, Dade City - Associates in Arts in Biology

CERTIFICATES:

- 2022 Basic Life Support (BLS) CPR/AED Certification, American Heart Association
2017 (Renewed 2023) CDC Select Agent Certification, USF, Global Health Inter-Disciplinary Research Center
2015 Graduate Certificate in Infection Control, University of South Florida, Tampa

PROFESSIONAL EXPERIENCE:

- 2024 - Present University of South Florida: Research Associate
GHIDR BSL3/ABSL3 Facility Interim Director
College of Public Health, Global Health interdisciplinary Research
- 2021 - Present University of South Florida, Research Associate
College of Public Health, Center for Onchocerciasis Diagnostics
- 2021 - 2023 University of South Florida, Research Associate
GHIDR BSL3/ABSL3 Facility Manager
College of Public Health, Global Health interdisciplinary Research
- 2020 - 2021 University of South Florida, Post-Doctoral Scholar
College of Public Health, Global Health interdisciplinary Research, Center for Onchocerciasis Diagnostics
- 2017 – 2020 University of South Florida, BSL3/ABSL3 and ABSL2 Graduate Research Assistant
College of Public Health, Global Health interdisciplinary Research
- 2015 - 2020 University of South Florida, Graduate Research Assistant
College of Public Health, Global Health interdisciplinary Research
- 2009 - 2020 1st Choice A/C Inc., Managing Partner
- 2006 - 2009 Boyette Animal Hospital, Senior Veterinary Technician, OSHA Trainer
- 2000 - 2005 San Antonio Animal Hospital, Veterinary Technician
- 1995 - 2000 Boyette Animal Hospital, Veterinary Technician

RESEARCH SUPPORT:

2025 - Current, FP00002849 (Precision Logistics / Miley)
University of South Florida, Global Health and Interdisciplinary Research (GHIDR) BSL3/ABSL3 Research Facility
Veterinary-based Natural Product / Avian Influenza Research
Total Award: \$466,671
Percent Effort: 20%

Role: Principal Investigator

2024 – Current, 6408116000 (The End Fund / Unnasch)
University of South Florida, Center for Onchocerciasis Diagnostics
Research, Strategic Planning and Lab Strengthening support for the Onchocerciasis Elimination Programs in Africa and Latin America
Total Award: \$538,349
Percent Effort: 20%

Role: Co-Investigator

2024 – Current, 8880025900 (Mectizan Donation Program / Unnasch)
University of South Florida, Center for Onchocerciasis Diagnostics
Research, Strategic Planning and Lab Strengthening support for the Onchocerciasis Elimination Programs in Africa and Latin America
Total Award: \$460,000
Percent Effort: 10%

Role: Co-Investigator

2023 – Current, HDTRA1343445 (DTRA, DetectION / Miley)
University of South Florida, Global Health and Interdisciplinary Research (GHIDR)
IRB study: Chip-Scale Mass Spectrometry for Rapid Breathomics-based Screening
Total Award: \$423,215
Percent Effort: 10%

Role: Principal Investigator

2021 – Current, 8880029001 (The Carter Center / Unnasch)
University of South Florida, Center for Onchocerciasis Diagnostics
Research, Strategic Planning and Lab Strengthening support for the Onchocerciasis Elimination Programs in Africa and Latin America
Total Award 2024: \$1,336,818
Total Award 2025: \$1,074,990
Percent Effort: 40%

Role: Co-Investigator

Previous Research Support:

2016 – 2021, U01CK000510 (Unnasch)
NIH: Centers for Disease Control and Prevention, Southeastern Center of Excellence in Vector Borne Diseases, The Gateway Program
University of South Florida, Global Health and Interdisciplinary Research (GHIDR) BSL3/ABSL3 Research Facility
Wintertime transmission of Eastern Equine Encephalitis Virus in Florida
We developed and validated a risk model to predict habitats at risk for EEEV transmission and investigated underlying biological determinants that drive EEEV wintertime transmission.
Percent Effort: 100%

Role: PhD / Post Doc

PUBLICATIONS:

- 2026 Kirsten M. Yeomans, Emma Underwood, Kanika Chandra, Thomas R Unnasch and **Kristi M Miley** Onchocerciasis Elimination Challenges and Co-Endemic Diseases, *Frontiers in Tropical Diseases*, section Neglected Tropical Diseases (In Revision for Publication)
- 2025 Maggie L. Bartlett, **Kristi Miley**, Sten H. Vermund, Scott C. Weaver, *Arthropod-borne disease challenges from planetary warming, urbanization, and migration Virol J*, October 2025
- 2024 Hassan K. Hassan, **Kristi M. Miley** & Thomas R. Unnasch, University of South Florida, *Verification of the reactivity of immunoglobulins in dried blood spots collected for onchocerciasis sero-surveillance by an Escherichia coli ELISA*, *Journal Frontiers in Tropical Diseases*, Vol. 5, July 2024

- 2024 Joni Downs, Saurav Chakraborty, Sean P. Beeman, Rebecca Loraamm, **Kristi Miley** & Thomas R. Unnasch, University of South Florida, *Effects of land use/land cover, bioclimatic, and topographic variables on the seasonal occurrence of eastern equine encephalitis virus in Florida*, Journal of Land Use Science, February 2024
- 2021 **Kristi Miley**, Joni Downs, Nathan D. Burkett-Cadena, Richard G. West, Brenda Hunt, George Deskins, Billy Kellner, Sandra Fisher-Grainger, Thomas R. Unnasch, Department of Global Health, College of Public Health, University of South Florida, *Field Analysis of Biological Factors Associated with Sites at High and Low to Moderate Risk for Eastern Equine Encephalitis Virus Winter Activity in Florida*, Journal of Medical Entomology, April, 2021
- 2021 Joni Downs, Mehrdad Vaziri, Abigail V. Lavallin, **Kristi Miley**, Thomas R. Unnasch *Mapping Eastern Equine Encephalitis Virus Risk on Equestrian Trails in Florida State Parks*, Journal of Park and Recreation Administration, March 2021
- 2020 **Kristi M Miley**, Department of Global Health, College of Public Health, University of South Florida, Dissertation *Spatial and Temporal Determinants Associated with Eastern Equine Encephalitis Virus Activity in Florida*, December, 2020
- 2020 **Kristi M Miley**, Joni Downs, Sean P Beeman, Thomas R Unnasch, Department of Global Health, College of Public Health, University of South Florida, *Impact of the Southern Oscillation Index, Temperature, and Precipitation on Eastern Equine Encephalitis Virus Activity in Florida*, Journal of Medical Entomology, September, 2020
- 2020 Liu C., De S.L., **Miley K.**, Unnasch T.R., Department of Global Health, College of Public Health, University of South Florida, *In vivo imaging of transgenic Brugia malayi.* PLOS Neglected Tropical Diseases, April, 2020
- 2020 **Miley, K.** Department of Global Health, College of Public Health, University of South Florida, *Global Health Biosecurity in a Vulnerable World – An Evaluation of Emerging Threats and Current Disaster Preparedness Strategies for the Future*, Chapter, Global Health Series, January, 2020
- 2019 Downs, J., Vaziri, M., Deskins, G. Kellner, W. **Miley, K.** and Unnasch, T.R. Department of Global Health, College of Public Health, University of South Florida, *Optimizing arbovirus surveillance using risk mapping and coverage Modelling*, Annals of GIS, November, 2019
- 2017 **Kristi Miley**, Department of Global Health, College of Public Health, University of South Florida, Master's Thesis *The Effect of Antigen Polymorphisms on Serological Antibody Detection Assays Based Upon the Onchocerca volvulus 16kDa Diagnostic Antigen (Ov16)*, July, 2017

ABSTRACTS

- 2026 Debra Howeth, **Kristi Miley**, *Implementing Safe and Effective H5N1 Poultry Research in BSL 3 Facilities*, 2026 SEBSA Symposium in Knoxville, TN (Abstract accepted for presentation at SEBSA 2026)
- 2026 Kanika Chandra, **Kristi Miley**, *Onchocerciasis Pathology, Comorbidities, and Coinfections in Africa*, USF Health Research Day, University of South Florida, March 2026
- 2026 Samyslandine Eugene, Alani Rodriguez, Madison Quinn, Eva Fernandez, **Kristi Miley**, Sylvia W. Thomas, *Effects of Dietary Changes on the Gut Microbiome in Both Sexes of the Rainbow Scarab Beetle*, University of North Florida-Florida Undergraduate Research Conference, March 2026, Jacksonville Florida
- 2025 Emma Underwood, Camila Trejo Paz, **Kristi Miley**, *Evaluation of Novel Ov16 ELISA Storage Techniques to Improve Onchocerciasis Diagnostics Applications*, American Society of Tropical Medicine and Hygiene 2025 Annual Meeting, November 2025, Ontario, Canada
- 2025 Mary-Ruth Joyce, **Kristi Miley**, *Using Maxent to model the potential distribution of Anopheles punctipennis mosquitoes in New England*, American Society of Tropical Medicine and Hygiene 2025 Annual Meeting, November 2025, Ontario, Canada
- 2025 Mary-Ruth Joyce, Camila Trejo Paz, **Kristi Miley**, *Analyzing the proportion of dengue virus serotypes reported in travel-associated and locally acquired cases in Florida*, American Public Health Association (APHA), November 2025, Washington DC)
- 2025 Mary-Ruth Joyce, Camila Trejo Paz, **Kristi Miley**, *Analyzing locally acquired dengue cases in Florida: Implications for vector abundance and disease control*, American Public Health Association (APHA) Abstract accepted June 2025, (Poster presentation scheduled November 2025, Washington DC)
- 2025 Mary-Ruth Joyce, **Kristi Miley**, *Predicting the potential distribution of Anopheles punctipennis mosquitoes in New England: A preliminary Maxent model*, Emory University, Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID) Presentation, Atlanta GA July 2025

- 2025 Spiros Manolakos, Dustin McRae, **Kristi Miley**, Mary-Ruth Joyce, Camila Trejo Paz , Cristina Davis, Mitchel McCartney, Eva Borrás, and Ashish Chaudhary, *Chip-Scale Mass Spectrometry for Point-of-Care Breath Diagnostics*, Detect-ION, University of South Florida, UC Davis, American Society for Mass Spectrometry (ASMS), 73rd Conference on Mass Spectrometry and Allied Topics, June 2025
- 2025 Bob Schweitzer, Spiros Manolakos, **Kristi Miley**, Mary-Ruth Joyce, Camila Trejo Paz , Cristina Davis, Mitchel McCartney, Eva Borrás, and Ashish Chaudhary, *Chemometric Techniques for the Automated Batch Processing of GC-MS Data for Chemical Identification and Supervised Model Development*, Detect-ION, University of South Florida, UC Davis, American Society for Mass Spectrometry (ASMS), 73rd Conference on Mass Spectrometry and Allied Topics, June 2025
- 2024 Spiros Manolakos, Dustin McRae, Bob Schweitzer, Kelli Barr, **Kristi Miley**, Thomas Unnasch, Mitchell McCartney, Cristina Davis and Ashish Chaudhary, *Chip-Scale Mass Spectrometry for Point-of-Care Breath Diagnostics*, Detect-ION, University of South Florida, UC Davis, The International Congress for Breath Research (IABR), June 2024

PRESENTATIONS / CONFERENCES

Year	Event / Location	Role
2026	Global Virus Network (GVN) 2026 Annual International Scientific Meeting, USF Health Downtown, Morsani College of Medicine, Tampa FL (March 2026)	Speaker
2026	US Army Civil Affairs Medical Department, Kanika Chandra and Kristi Miley, <i>Onchocerciasis Basics and Beyond</i> , (February 2026)	Invited Speaker
2025	RLMF Country and Partner Consultation on Laboratory Strengthening Meeting in Abuja, Nigeria: Kristi Miley , Hassan Hassan, “ <i>Challenges & Lab Capacity Strengthening for Onchocerciasis Elimination Efforts in Africa</i> ” (August 2025)	Invited Speaker
2025	Global Virus Network (GVN) Summer Camp, Global Guardians, Youth for Pandemic Preparedness: Kristi Miley , “ <i>Entomology and Arboviral Research, Detecting Outbreaks</i> ”, and “ <i>Tools of the Trade: PPE and Rapid Tests</i> ” (July 2025)	Invited Speaker
2025	Global Virus Network (GVN) 2025 Regional Scientific Meeting, State University of New York (SUNY), The University of the West Indies (UWI), Global Infectious Diseases (GID) Research Training Program, Kingston, Jamaica: Kristi Miley , Mary-Ruth Joyce, “ <i>Dengue in Florida, Globalization of Disease Risk Through Competent Mosquito Vectors</i> ” (May 2025)	Invited Speaker
2025	The Carter Center 29 th Annual River Blindness, Lymphatic Filariasis, and Schistosomiasis Program Review, Atlanta GA	Attendee
2024	Global Health Student Association, University of South Florida, Tampa FL, “ <i>Global Health Practice, Challenges & Capacity Strengthening for Onchocerciasis Elimination</i> ” (February 2024)	Invited Speaker
2021	Florida Mosquito Control Association (FMCA) Conference, Presenter/Attendee, Duck Key FL, Mikayla D. Maddison, Zhiru Li, Kristi M. Miley , Catherine B. Poole, Clotilde Carlow, Thomas R. Unnasch, Department of Global Health, College of Public Health, University of South Florida, in Collaboration with New England BioLabs, “ <i>Development and Validation of a Colorimetric Loop-Mediated Isothermal Amplification (LAMP) Assay for Detection of Eastern Equine Encephalitis Virus (EEEV) in Mosquitoes</i> ”, (October 2021)	Invited Speaker
2020	American Society of Tropical Medicine and Hygiene (ASTMH) Conference	Presenter/Attendee
2020	American Public Health Association (APHA) Conference	Presenter/Attendee
2020	USF Health Research Day, Kristi M Miley , Joni Downs, Nathan D. Burkett-Cadena, Richard G. West, Benjamin Brewer, Peter Brabant, Brenda Hunt, George Deskins, Billy Kellner, Sandra Fisher-Grainger, Thomas R. Unnasch, “ <i>Evaluation of Eastern Equine Encephalitis Virus (EEEV) Winter Activity in Florida</i> ”, (February, 2020)	Invited Speaker
2019	American Society of Tropical Medicine and Hygiene (ASTMH) Conference, National Harbor Maryland	Presenter/Attendee
2019	Anastasia Mosquito Control District (AMCD) Arbovirus Surveillance Workshop, Anastasia FL, Kristi Miley , Joni Downs, Nathan Burkett-Cadena, Richard West, Brenda Hunt, George Deskins, Sandra Fisher-Grainger and Thomas R. Unnasch “ <i>Protecting against a viral invader: An examination of eastern equine encephalitis virus (EEEV) activity in Florida</i> ”, (March 2019)	Invited Speaker
2018	Anastasia Mosquito Control District (AMCD) Arbovirus Surveillance Workshop, Attendee, Anastasia FL	Invited Speaker

2018	Florida Mosquito Control Association (FMCA) Conference, Attendee, St. Petersburg FL	Attendee
2017	USF Health Research Day, Kristi Miley , Hassan Hassan, Canhui Liu, and Thomas R. Unnasch, Department of Global Health, College of Public Health, University of South Florida, Research Day, "Onchocerca Diagnostic Testing of Polymorphisms: Effects of Antigenic Mutations on Detection of Antibodies by OV-16 ELISA", (February 2017)	Presenter/Attendee

AWARDS:

2020	USF Health Research Day, Joseph Krzanowski, PhD Invited Oral Presentations Award
2020	American Public Health Association (APHA) National Delta Omega Presentation Finalist Award
2019	USF Sharp Award for American Society of Tropical Medicine and Hygiene (ASTMH) Presentation
2007	Phi Theta Kappa Honors Award
2007	Who's Who Among Students Award

PROFESSIONAL ORGANIZATIONS

Institutional Animal Care and Use Committee (IACUC)	2026 – Present
Global Virus Network (GVN)	2025 – Present
American Society of Tropical Medicine and Hygiene (ASTMH)	2017 – Present
American Public Health Association (APHA)	2017 – Present
Florida Mosquito Control Association (FMCA)	2017 – Present

TEACHING ACTIVITIES

<i>2017 - Current</i>	<i>University of South Florida, Tampa</i>	
<i>Term</i>	<i>Course Number, Course Title</i>	<i>Role</i>
Spring 2026	PHC 6512 Vectors of Human Disease	Instructor
Spring 2026	PHC 7980 Dissertation	Instructor
Spring 2026	PHC 7910 Directed Research	Instructor
Fall 2025	PHC 6516 Tropical Diseases	Instructor
Fall 2025	PHC 7980 Dissertation	Instructor
Fall 2025	PHC 7910 Directed Research	Instructor
Summer 2025	PHC 6943 Integrated Learning Experience	Instructor
Summer 2025	PHC 7910 Directed Research	Instructor
Spring 2025	PHC 6513 Public Health Parasitology	Instructor
Spring 2025	PHC 6943 Integrated Learning Experience	Instructor
Spring 2025	PHC 7910 Directed Research	Instructor
Fall 2024	PHC 6516 Tropical Diseases	Instructor
Fall 2024	PHC 7910 Directed Research	Instructor
Fall 2024	PHC 7980 Dissertation	Instructor
Summer 2024	PHC 7910 Directed Research	Instructor
Spring 2024	PHC 6512 Vectors of Human Disease	Instructor
Spring 2024	PHC 6943 Integrated Learning Experience	Instructor
Spring 2024	PHC 6949 Applied Practice Experiences	Instructor
Spring 2024	PHC 7980 Dissertation	Instructor
Fall 2023	PHC 6516 Tropical Diseases	Instructor
Spring 2023	PHC 6513 Public Health Parasitology	Instructor
Fall 2022	PHC 6516 Tropical Diseases	Instructor
Spring 2019	HSC 4624 Foundations of Global Health	Instructor
Fall 2018	HSC 4624 Foundations of Global Health	Teaching Assistant
Summer 2018	HSC 4504 Foundations of Public Health Immunology	Teaching Assistant
Spring 2018	HSC 4504 Foundations of Public Health Immunology	Teaching Assistant
Fall 2017	HSC 4504 Foundations of Public Health Immunology	Teaching Assistant

DEGREE – CANDIDATE / TRAINEES

- 2024 - Current Emma Underwood
PhD Candidate, USF College of Public Health (Global Infectious Diseases)
Role: Primary Research Mentor
Current Position: PhD Candidate, Graduate Research Assistant, USF - COPH
Expected Graduation Fall 2027
- 2024 - Current Mary-Ruth Joyce
PhD Student, USF College of Public Health (Global Infectious Diseases)
Role: Primary Research Mentor
Current Position: PhD Student, Graduate Research Assistant, USF - COPH
Expected Graduation Fall 2027
- 2024 - Current Jessica Monaghan
PhD Student, USF College of Public Health (Global Infectious Diseases)
Role: Research Co-Mentor
Current Position: PhD Student, Graduate Research Assistant, USF - COPH
Expected Graduation Spring 2028
- 2024 Elizabeth Traverse, PhD
PhD Candidate, USF College of Public Health (Global Infectious Diseases)
Role: Primary Research Mentor
Graduated 2024
Current Position: *Global Virus Network*
- 2019 - 2021 Mikayla D. Maddison, MPH
Master's student, USF College of Public Health (Global Communicable Diseases)
Role: Research Co-Mentor with Dr. Unnasch (USF)
Graduated 2021
Current Position: *Moffitt Cancer Center*

SERVICE:

Ad Hoc Reviewer:

PLoS neglected tropical diseases
PLoS one

University Service:

- 2026 – Current USF Institutional Animal Care and Use Committee (IACUC)
Research Scientist Committee Member
- 2025 – Current Global Virus Network (GVN)
Scientific Leadership Committee (SLC) Member
Scientific Review Committee (SRC) Member

Community Service:

- 2014 - 2021 Hernando County Sheriff's Civilian Mounted Equine Unit Member community outreach, search and rescue.
President 2-year term (2020 – 2021)
Secretary 2-year term (2018 – 2020)
Treasurer 2-year term (2016 – 2018)