

Timothy Erickson

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Education Completed

August 2020-July 2023, University of Florida, Gainesville, Florida

Master of Science in Microbiology and Cell Science

August 2015-December 2019, University of Texas Health Science Center at Houston School of Public Health, Houston, Texas.

PhD in Public Health in Epidemiology

Dissertation: “Clinical and Epidemiologic Investigation of Meningitis and Encephalitis in a Pediatric Population 2010-2017”

Minor: Biostatistics

Global Health Certificate

August 2013-July 2015, Texas A&M University Health Science Center, College Station, Texas.

Master of Science in Public Health in Epidemiology

Thesis: “A Systematic Review of Murine typhus.”

August 2008-May 2013, Texas A&M University, College Station, Texas.

Bachelor of Science in Bioenvironmental Science and Plant Pathology and Microbiology

Bachelor of Science in Soil and Crop Sciences

Scientific Funding Awarded

US Centers for Disease Control and Prevention, Co-Investigator *Assessment of Highly Pathogenic Avian Influenza (H5N1) Among Dairy Farm Workers*, 07/2024-07/2025,

Total Budget: \$3,856,500

Oak Ridge Institute for Science and Education/Intelligence Community Postdoctoral Fellowship, Fellow “*Machine Learning for the Identification of Encephalitis Etiology*” 10/2020-

8/2023, Total Budget: \$296,000

NIH R03, Consultant “*Novel recombinant protein immunoassays for the diagnosis and monitoring of toxocariasis in children living in the United States.*” Awarded 6/2023

Scientific Funding Submitted

NIH R21, PI “*Assessing Novel Biomarkers of Neurologic Disease in an Animal Model.*”

Submitted 2/2025.

TICER Pilot Award, CO-PI. “Assessing Neglected Parasitic Threats to Vulnerable Populations in Texas Soil and Drinking Water.” Submitted 10/2024

Fulbright US Scholar Program, PI. “Machine Learning and Biostatistics Education to Improve Public Health in Malawi.” Submitted 9/2025

Scientific Publications

1. Taylor LA, Lam A, **Erickson TA**, Gonzales GMN, Fischer RB. “Emerging Trends in Texas Hospitalizations: A Decade of Giardiasis and Cryptosporidiosis.” In Progress
2. Putnam M, **Erickson TA**, Szezulski J. “Relationship between the Healthy Eating Index and Metabolic Syndrome Risk among Adolescent Populations (12-19 yrs): An NHANES 2009-2018 analysis.” In Progress
3. Halling KN, Gu E, Rodriguez C, Swinford A, Dominguez B, Gunter SM, Taylor L, Fischer RB, **Erickson TA**. “Patterns of Domestic Dog Rickettsia Prevalence as Reported to the Texas Veterinary Medical Diagnostic Laboratory from 2013-2023.” In Progress
4. Cleaver JC, Chungath R, Gimson A, Strippel C, Ceronie B, Soleimani B, Johnson T, Muscal E, Fisher K, Jiang Y, **Erickson TA**, Murray KO, Hovet STF, Poulsen CA, Magnusson A, Dumez P, Ronca SR, Quade A, Swayne A, Blaabjerg M, Nissen M, Sandweiss AJ, Honnorat J, Dale R, Lim M, Eyre M, Nosadini M, Handunnetthi L, Irani SR, Handel AE. “Clinical phenotype, immunotherapy safety and outcomes in patients with autoimmune encephalitis after herpes simplex virus encephalitis: a systematic review and meta-analysis.” Submitted to *Lancet Neurology*
5. Sandweiss AJ, **Erickson TA**, Jiang Y, Kannan V, Yarimi J, Fisher K, Shukla N, Lotze T, Muscal E, Murray KO. “Novel observations and natural history of pediatric anti-NMDA receptor encephalitis: the Texas Children’s Hospital Experience.” Submitted to *Journal of Clinical Investigation*
6. Khan A, **Erickson TA**, Carillo L. “Descriptive Analysis of COVID-19 and Monkey pox co-infection in the individuals in a large American urban city in the year 2022.” Submitted to *Emerging Infectious Diseases*
7. **Erickson TA**, Muscal E, Jiang Y, Munoz-Rivas F, Sandweiss A, Rider N, DeSantis S, Hasbun R, Murray KO. “Development and Implementation of a Machine Learning Model for the Identification of Pediatric Encephalitis Etiology.” Submitted to *Lancet Neurology*
8. Kass N, Ledbetter E, **Erickson TA**, Yarimi JM, Zoghbi A, Muscal E, Murray KO, Shukla N, Fischer KS, Sandweiss AJ. “Pediatric NMDAR Encephalitis is Differentiated

from Encephalitis Mimickers by Early Elevated Blood Pressure.” Submitted to *Journal of Neurology, Neurosurgery & Psychiatry*

9. Cramer MF, Leining LM, **Erickson TA**, Tolan J, Hanis CL, Brown EL, Gunter SM. “The Seroprevalence and Risk Factors for Spotted Fever Group and Typhus Group Rickettsia Along the Texas-Mexico Border.” Accepted, *American Journal of Tropical Medicine and Hygiene*.
10. Leining LM, **Erickson TA**, Hanis C, Bauer CX, Brown EL, Mejia R, Gunter SM. “Epidemiologic Investigation of Protozoan and Soil-Transmitted Helminths in Starr County, Texas.” *American Journal of Tropical Medicine and Hygiene*. In press
11. Gombolay G, Brenton, NJ, Yang JH, Stredny CM, Kammeyer R, Fisher KS, Sandweiss AJ, **Erickson TA**, Kannan V, Otten C, Steriade C, Vu N, Santoro JD, Roblez-Lopez K, Goodrich R, Otallah S, Arellano J, Christiana A, Morris M, Gorman M, Kornbluh A, Kahn I, Sepeta L, Muscal E, Murray KO, Moodley M, Hardy D. “Isolated psychiatric symptoms in children with anti-NMDA Receptor Encephalitis.” *Pediatric Neurology*. 2024; 159:(12-15)
12. Lewy K, Bova J, **Erickson TA**, Rose R, Lawhon S, Vemulapalli TH “Optimizing the Glass Bead Sterilization Protocol Focusing on Removal of Organic and Bacterial Intraoperative Contamination” *Journal of the American Association of Laboratory Animal Science*. 2024; 63(4):368-376.
13. Kannan V, Sandweiss AJ, **Erickson TA**, Yarimi JM, Ankar A, Hardwick VA, Shukla NM, Lotze TE, Risen SR, Riviello JJ, Lai YC, Moeller KK Fisher K. “Fulminant anti-MOG-associated cerebral cortical encephalitis: case series of a severe pediatric MOGAD phenotype.” *Pediatric Neurology*. 2023.
14. Fortini MB, **Erickson TA**, Leining LM, Robinson KM, Carey MN, Smith SJ, Sullivan B, Nelson AR, Gunter SM, Weatherhead JE. “Review of Toxocariasis at a Children’s Hospital Prompting Need for Public Health Interventions.” *Pediatric Infectious Disease Journal*. 2023; 42(10).
15. Sandweiss AJ, **Erickson TA**, Jiang Y, Kannan V, Yarimi JM, Levine JM, Fisher K, Muscal E, Demmler-Harrison G, Murray KO, Ronca SE. “Infectious profiles in pediatric anti-N-methyl D-aspartate receptor encephalitis.” *Journal of Neuroimmunology*. 2023; 15(381).
16. Ness TE, **Erickson TA**, Diaz V, Grimes AB, Rochat R, Anvari S, Hajjar J, Weatherhead JE. “Pediatric eosinophilia: A review and multiyear investigation into etiologies.” *The Journal of Pediatrics*. 2022; S0022-3476.*

17. Shih DC, Silver R, Henao OL, Alemu A, Audi A, Bigogo G, Colston JM, Edu-Quansah EP, **Erickson TA**, Gashu AG, Gbelee B., Gunter SM, Kosek MN, Logan GG, Mackey JM, Maliga A, Manzanero R, Morazan G, Morey F, Munoz FM, Murray KO, Nelson TV, Olortegui MP, Yori PP, Ronca SE, Schiaffino F, Tayachew A, Tedasse M, Wossen M, Allen DP, Angra P, Balish A, Farron M, Guerra M, Herman-Roloff A, Hicks VJ, Hunsperger E, Kazazian L, Mikoleit M, Munyua P, Munywoki PK, Namwase AS, Onyango CO, Park M, Peruski LF, Sugerman DE, Gutierrez EZ, Cohen AL. “Incorporating COVID-19 into Acute Febrile Illness Surveillance Systems, Belize, Kenya, Ethiopia, Peru, and Liberia, 2020–2021.” *Emerging Infectious Diseases*. 2022; 28(13).
18. Lino A, **Erickson TA**, Nolan MS, Murray KO, Ronca SE. “A Preliminary Study of Proinflammatory Cytokines and Depression Following West Nile Virus Infection.” *Pathogens*. 2022; 11(6): 650
19. Leining LM, Short K, **Erickson TA**, Gunter SM, Ronca SE, Schulte J, Murray KO. “Syndromic surveillance among evacuees at a Houston “megashelter” following Hurricane Harvey.” *Sustainability*. 2022; 14(10): 6018.
20. **Erickson TA**, Ronca SE, Gunter SM, Brown EL, Hasbun R, Murray KO. “Zoonotic Disease Testing Practices in Pediatric Patients with Meningitis and Encephalitis in a Subtropical Region.” *Pathogens*. 2022; 11(5): 501*
21. Ly AN, Manzanero R, Maliga A, Gunter SM, Ronca SE, Zielinski-Gutierrez E, Perez L, Morey F, Bautista K, Spinoza-Bode A, Lopez B, Cadena L, Chacon-Fuentes R, **Erickson TA**, Munoz-Rivas F, Mackey J, Morazan GH, Murray KO. “Epidemiological and Clinical Characteristics of Acute Dengue Virus Infections Detected through Acute Febrile Illness Surveillance, Belize 2020.” *Viruses*. 2022; 14(4): 768
22. **Erickson TA**, Mayes B, Murray KO, Gunter SM. “The epidemiology of Human ehrlichiosis in Texas, 2008-2017.” *Ticks and Tick-borne Diseases*. 2021; 12(6): 101788
23. Nolan MS, Aguilar D, Misra A, Gunter SM, **Erickson T**, Gorchakov R, Rivera H, Montgomery SP, Murray KO. “*Trypanosoma cruzi* infection in nonischemic cardiomyopathy patients, Houston, Texas.” *Emerging Infectious Diseases*. 2021; 27(7):1958-1960
24. **Erickson TA**, Munoz FM, Troisi C, Nolan MS, Hasbun R, Brown E, Murray KO. “The epidemiology of meningitis in infants under 90 days of age in a large pediatric hospital.” *Microorganisms*. 2021; 9(3): 526

25. Ness TE, Agrawal V, Bedard K, Ouellette L, **Erickson TA**, Hotez P, Weatherhead J. “Maternal Hookworm Infection and its Effects on Maternal and Child Health: A Systematic Review and Meta-Analysis.” *American Journal of Tropical Medicine and Hygiene*. 2020; 103(5): 1958-1968
26. **Erickson TA**, Muscal E, Munoz F, Hasbun R, Brown E, Murray KO. “Infectious and Autoimmune Causes of Encephalitis in Children.” *Pediatrics*. 2020; 145(6):
27. Rogers T, Sok K, **Erickson T**, Aguilera E, Wootton SH, Murray KO, Hasbun R. “The Comparison of Gram-Positive and Gram-Negative Healthcare Associated Ventriculitis and Meningitis in Adults and Children.” *Intensive Care Medicine*. 2019; 46(1): 128-131
28. Rogers T, Sok K, **Erickson T**, Aguilera E, Wootton SH, Murray KO, Hasbun R. “Impact of Antibiotic Therapy in the microbiological yield of Healthcare-associated ventriculitis and meningitis.” *Open Forum Infectious Diseases*. 2019; 6(3)
29. Nolan M, Cruz A, **Erickson T** “A Retrospective Chart Analysis of Child and Adolescent *Trichomonas vaginalis* in Houston, Texas.” *Journal of the Pediatric Infectious Disease Society*. 2019; 9(1): 75-81
30. **Erickson T**, Gunter SM, Starke J, & Murray KO. “Evidence of locally acquired spotted fever group rickettsioses in Southeast Texas, 2008–2016.” *Zoonoses and public health*, 2018; 65(7): 897-901.
31. **Erickson T**, Garcia MN, Marquez L, Munoz F, Murray KO. “Newly Recognized Pediatric Cases of Typhus Group Rickettsiosis, Houston, Texas.” *Emerging Infectious Diseases*. 2017; 23(12):2068-2071
32. **Erickson T**. “Epidemiology of Leptospirosis in Mesoamerica: Historical Perspectives on One Health Transmission.” *Current Tropical Medicine Reports*. 2017; 4:62-69
33. Murray KO, Evert N, Mayes B, Fonken E, **Erickson T**, Garcia MN, Sidwa T. “Typhus Group Rickettsiosis, Texas, USA, 2003–2013.” *Emerging Infectious Diseases*. 2017;23(4):645-648.
34. Jinadatha C, Hussain Z, **Erickson TA**, Villamaria F, Copeland L, Huber T. “Origin of Methicillin Resistant *Staphylococcus aureus* Health Care-Associated Infections: Evaluation of the Role of Anterior Nares.” *American Journal of Infection Control*. 2015;43(10):1125-1127.

Conference Presentations

1. Machine Learning for Prediction of Infectious Diseases
Presented at the Intelligence Community Academic Research Symposium, September, 2022
2. The Epidemiology of Typhus & Spotted Fever Group Rickettsioses
Presented at the One Health Conference, October, 2021
3. Development and Implementation of a Machine Learning Model for the Identification of Encephalitis Etiology
Presented at the Intelligence Community Academic Research Symposium, September, 2021
4. The Importance of Timing in Testing for Infection with Typhus and Spotted Fever Group *Rickettsia*
Presented at the Disease in Nature Conference, May, 2021
5. Worms on my Mind: Tracking Neurocysticercosis in Houston
Presented at the One Health Conference, September, 2019
6. Evidence of Autochthonous Transmission of Neurocysticercosis in Houston
Presented at the Disease in Nature Conference, May, 2019
7. Worms on my Mind: Tracking Neurocysticercosis in Houston
Presented at the Southern Conference of Graduate Schools, February, 2019
8. Arboviruses and Zoonotic Pathogens as Causes of Encephalitis in a Pediatric Population
Presented at the South Texas Tropical Medicine and Vector Borne Disease Conference, February, 2019
9. Meningitis and Encephalitis in a Pediatric Population
Presented at the Disease in Nature Conference, May, 2018
10. Newly Recognized Pediatric Cases of Typhus Group Rickettsiosis in Houston, Texas
Presented at the Disease in Nature Conference, May, 2017

Scientific Reviewer

Pediatric Infectious Disease Journal

PLOS Neglected Tropical Diseases

Open Forum Infectious Diseases

International Journal of Environmental Research and Public Health

Pathogens

Healthcare

Tropical Medicine Infectious Diseases

Journal of Clinical Medicine

Life

Antibiotics
Microorganisms

Highlighted Work/Research Experience

August 2023-Present, Texas A&M University School of Public Health, College Station, Texas
Assistant Professor

October 2020-August 2023, Oak Ridge Institute for Science and Education/Intelligence Community Postdoctoral Fellowship, assigned to Texas Children's Hospital, Houston, Texas
Postdoctoral Fellow

April 2020-June 2021, Houston Health Department, Houston Texas
Epidemiology Supervisor for COVID-19 response

May 2014-August 2014 and August 2015-March 2020, Baylor College of Medicine National School of Tropical Medicine, Houston, Texas
Research Assistant

June 2017-August 2017, Houston Health Department, Houston, Texas
Staff Epidemiologist

August 2014-August 2015, Veterans' Health Administration Olin E. Teague Hospital, Temple, Texas
Infection Control Research Epidemiologist

Highlighted Teaching Experience

Texas A&M University School of Public Health
Assistant Professor

PHEB 605 (Epidemiology 1), in-person (Fall 24)
PHEB 605 (Epidemiology 1), online (Fall 24)
PHEB 603 (Biostatistics 2), in-person (Spring 24)
SOPH 603 (Epidemiology Core Course), in-person (Spring 25)
SOPH 603 (Epidemiology Core Course), online (Spring 25)

August 2022, Texas A&M University School of Public Health
Visiting Assistant Professor
Created and instructed a section of PHEB 605 (Epidemiology 1 for Epidemiology majors)

June 2022, Houston Health Department
Invited to prepare and present a series of trainings on the interface between science and practice for practicing public health personnel; highlighted lectures included a general overview of the academic publication process

March 2020-September 2020, Houston Health Department

Epidemiology Supervisor

Served as trainer of choice for new epidemiologists during COVID-19 outbreak for congregate settings teams

June 2013-August 2013, Duke University Talent Identification Program, College Station, Texas. *Teaching Assistant*

June 2012-August 2012, Duke University Talent Identification Program, College Station, Texas. *Teaching Assistant*

Invited Guest Speaker

October 2022, Texas A&M University, Infectious Disease Epidemiology

Invited Guest Lecturer on Neuroinvasive Diseases

March 2019, Texas A&M University, Infectious Disease Epidemiology

Invited Guest Lecturer on Rickettsioses

January 2019, Blanton CTE High School

Invited Guest Lecturer on Parasitic Diseases

April 2018, University of Texas Health Science Center at Houston School of Public Health, Tropical Infectious Diseases

Invited Guest Lecturer on Parasitic Diseases

December, 2015, Debakey High School for Health Professions

Invited Guest Lecturer on Rickettsioses

Skills and Certifications

Experienced with R, SAS, STATA, SPSS, ArcGIS, Python, and Excel.

Certified in Public Health (CPH)

Awards

Won popular vote category at the Southern Conference of Graduate Schools

Won both first place and popular vote categories of the University of Texas Health Science Center at Houston Three Minute Thesis

Awarded leadership certificate from the Texas A&M University Corps of Cadets for completion of a 4-year leadership program and 14 semester hours of leadership study

Professional Memberships

Sigma Chi Scientific Honor Society

Elected full member, July 2020

Delta Omega Public Health Honor Society

Nominated for membership November, 2019