

Paul M. Lantos, MD, MS-GIS

Professor of Internal Medicine, Pediatrics, and Community and Family Medicine
Division of General Internal Medicine
Division of Pediatric Infectious Diseases
Division of Occupational and Environmental Medicine
Research Professor of Global Health
Duke University School of Medicine
Duke Global Health Institute
Chair, Duke University Health System IRB



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EDUCATION

- May 2016* Masters of Science in Geographic Information Systems
Johns Hopkins University, Baltimore, MD
- May 2000* Doctor of Medicine
University of Connecticut School of Medicine, Farmington, CT
- May 1996* Bachelor of Arts in Biochemistry
Correlate Sequence in Medieval and Renaissance Studies
Cum Laude Generali (General Honors)
Cum Laude in Materia Subjecta (Departmental Honors in Biochemistry)
Vassar College, Poughkeepsie, NY
- Fall 1994* Undergraduate semester abroad
University of Otago, Dunedin, New Zealand
- June 1992* Diploma with Honors in Science
Choate Rosemary Hall, Wallingford, CT

POSTGRADUATE MEDICAL TRAINING

- 7/04-6/07* Fellow in Pediatric Infectious Diseases
Boston Children's Hospital
Harvard Medical School
Research Fellow, Department of Immunology and Infectious Diseases
Harvard School of Public Health
- 7/00-6/04* Intern and Resident in Internal Medicine and Pediatrics
University of Connecticut School of Medicine, Farmington/Hartford, CT

EMPLOYMENT

- 7/08 – present* Duke University Medical Center and Duke University School of Medicine

2008-2017 *Medical Instructor*
 2017-2018 *Assistant Professor*
 2018- *Associate Professor*
 2021- *Professor*
 Dept of Medicine
 Division of General Internal Medicine
 Dept of Pediatrics
 Division of Pediatric Infectious Diseases
 Dept of Community and Family Medicine
 Division of Occupational and Environmental Medicine
 DUHS Institutional Review Board, Chair
 Associate Research Professor, Duke Global Health Institute

9/07 – 6/08 Eagle Hospitalists, Moses Cone Health System, Greensboro, NC

CERTIFICATIONS AND LICENSURE

May 2009 Certificate in Travel Health[®], International Society of Travel Medicine
July 2007 Diplomate in Infectious Diseases, American Board of Pediatrics
October 2004 Diplomate of the American Board of Pediatrics
August 2004 Diplomate of the American Board of Internal Medicine

August 2007 North Carolina Medical Board, #2007-01187
May 2004 Massachusetts Board of Registration in Medicine, #220698 (expired)

HONORS AND AWARDS

2017 Early Career Research Award
 Duke University Division of General Internal Medicine

2014-2017 Duke CTSA KL2 Mentored Clinician Scientist Career Development Award

2014 Fellow of the Infectious Diseases Society of America (FIDSA)

2012 Fellow of the American College of Physicians (FACP)

2007 Fellow of the American Academy of Pediatrics (FAAP)

2005-2007 American Society of Tropical Medicine and Hygiene / Burroughs-Wellcome
 Fund Fellowship in Tropical Infectious Diseases

2004 Allen Soto Award for Excellence in Pediatric Infectious Diseases
 University of Connecticut Department of Pediatrics

2000 Scholar in Pediatrics, University of Connecticut School of Medicine

2000 Scholar in Internal Medicine, University of Connecticut School of Medicine

1997 Sigma Xi Scientific Research Society, University of Connecticut Chapter

1997 Hughes Summer Research Fellowship

1996	Middlesex County Medical Association Nolan Scholarship
1991-1994	Hughes Summer Research Fellowship, Wesleyan University
1992	Choate Rosemary Hall Award for Outstanding Achievement in Biology

PUBLICATIONS

PEER- REVIEWED SCIENTIFIC PUBLICATIONS

1. Pan W, Fernandez D, Tyrovolas S, Gine-Vazquez I, Dasgupta RR, Zaitchik BF, **Lantos P**, Woods CW. Heterogeneity in the Effectiveness of non-pharmaceutical interventions during the first SARS-CoV2 wave in the United States. *Frontiers in Public Health* [in press]
2. **Lantos PM**, Balamuth F, Neville D, Garro AC, Levas MN, Bennett J, Thompson AD, Kharbada AB, Branda JA, Nigrovic LE. Two-tier Lyme disease serology in children with previous Lyme disease. *Vector Borne Zoonotic Dis.* 2021 Oct 4. PMID: 34610255.
3. Raynor E, Holmes C, Crowson M, Peskoe S, Planey A, **Lantos PM**. Loss to follow up of failed hearing screen and missed opportunities to detect congenital cytomegalovirus are better identified with the implementation of a new electronic health record system protocol. *Int J Pediatr Otorhinolaryngol.* 2021 Jun 25. PMID 34198229.
4. Barnes AN, Davaasuren A, Baasandavgal U, **Lantos PM**, Gonchigoo B, Gray GC. Zoonotic enteric parasites in Mongolian people, animals, and the environment: Using One Health to address shared pathogens. *PLoS Neglected Tropical Diseases* 2021 Jul 8;15(7):e0009543. PMID: 34237083.
5. Noyd DH, Neely NB, Schroeder KM, **Lantos PM**, Power S, Kreissman SG, Oeffinger KC. Integration of cancer registry and electronic health record data to construct a childhood cancer survivorship cohort, facilitate risk stratification for late effects, and assess appropriate follow-up care. *Pediatr Blood Cancer* 2021 Mar 19; e29014. PMID 33742534.
6. **Lantos PM**, Tsao J, Janko M, Arab A, von Fricken ME, Auwaerter PG, Nigrovic LE, Fowler V, Ruffin F, Gaines D, Broyhill J, Swenson J. Environmental correlates of Lyme disease emergence in Southwest Virginia, 2005-2014. *Journal of Medical Entomology* 2021 Apr 7. PMID 33825903.
7. Turner NA, Pan W, Martinez-Bianchi V, Maradiaga-Panayotti G, Planey AM, Woods CW, **Lantos PM**. Racial, Ethnic, and Geographic Disparities in Novel Coronavirus (SARS-CoV-2) Test Positivity in North Carolina. *Open Forum Infectious Diseases* 2020 Sep 8;8(1):ofaa413, PMID: 33575416.
8. Cobert J, **Lantos PM**, Janko MM, Williams DGA, Raghunathan K, Krishnamoorthy V, JohnBull EA, Barbeito A, Gulur P. Geospatial Variations and Neighborhood Deprivation in Drug-Related Admissions and Overdoses.. *J Urban Health.* 2020 May 4, PMID: 32367203.
9. Wang A, Janko M, Buchanan E, Nigrovic LE, Fine AM, **Lantos PM**. A Bayesian spatiotemporal analysis of pediatric group A *Streptococcal* infections. *Open Forum Infectious Diseases* 2019 Dec 10;6(12):ofz524, PMID: 31867406.

10. Mutucuramana CP, Bodinayake CK, Nagahawatte A, Devasiri V, Kurukulasooriya R, Anuradha T, De Silva AD, Janko MM, Østbye R, Gubler DJ, Woods CW, Reller ME, Tillekeratne LG, **Lantos PM**. Geospatial analysis of dengue emergence in rural areas in the Southern Province of Sri Lanka. *Trans Royal Soc Trop Med Hyg* 2019 Dec 24, PMID: 31885050.
11. Meservey A, Sullivan A, Wu C, **Lantos PM**. Sciuri A Case of Staphylococcus scuri peritonitis in a patient on peritoneal dialysis. *Zoonoses and Public Health* Published online 2019 Nov 26. PMID: 31769606.
12. Kobayashi T, Higgins Y, Samuels R, Moaven A, Sanyal A, Yenokyan G, **Lantos PM**, Melia MT, Auwaerter PG. Misdiagnosis of Lyme disease with unnecessary antimicrobial treatment characterize patients referred to an academic infectious diseases clinic. *Open Forum Infect Dis*. Published online 2019 July 5. PMID: 31363774.
13. Small M, Magriples U, Ghebre R, Bazzett-Matabele L, Ntirushwa D, Kitessa D, Ntsumbumuyange D, **Lantos P**, Ngabonziza E, Hill W, Ruzindana K, Rukundo JD, Moscovitz AN, Bagambe P, Brown H, Rulisa S. Increased Rwandan Access to Obstetrician-Gynecologists Through a U.S.-Rwanda Academic Training Partnership. *Obstet Gynecol*. 2019 Jul;134(1):149-156. PMID: 31188322.
14. Wheeler S, DeNoble A, Wynn C, Weaver K, Swamy G, Janko M, **Lantos P**. Beyond the Window: Patient Characteristics and Geographic Locations Associated with Late Prenatal Care in Women Eligible for 17-P Preterm Birth Prevention. *J Racial Ethn Health Disparities*. 2019 Jan 10 [Epub ahead of print] PMID: 30632084.
15. **Lantos PM**, Maradiaga-Panayotti G, Barber X, Raynor E, Tucci D, Hoffman K, Permar SR, Jackson P, Hughes BL, Kind A, Swamy GK. Geographic and racial disparities in infant hearing loss. *Otolaryngology-Head and Neck Surgery* 2018 Oct 9 [Epub ahead of print] PMID: 30296906.
16. Garro A, Bennett J, Balamuth F, Levas MN, Neville D, Branda JC, Maulden AB, **Lantos PM**, Nigrovic LE. Positive Two-tiered Lyme Disease Serology is Uncommon in Asymptomatic Children Living in Endemic Areas of the U.S. *Pediatric Infectious Disease Journal* 2018 Jul 31 [Epub ahead of print] PMID: 30067595.
17. von Fricken ME, Lkhagvatseren S, Boldbaatar B, Nymadawa P, Weppelmann TA, Beck-Ochir B, Anderson BA, Reller ME, **Lantos PM**, Gray GC. Seroprevalence of *Anaplasma* spp. and spotted fever group *Rickettsia* exposure among herders and livestock in Mongolia. *Acta Tropica* 2018;177;179–185.
18. von Fricken ME, Baigalmaa BO, Dalantai G, Valenzuela L, Tsogbadrakh N, Painter JE, **Lantos PM**. A fatal case of imported malaria in a non-endemic developing country – Mongolia, 2016. *Asian-Pacific Journal of Tropical Disease*. 2017: 7(12).
19. Kobayashi T, Higgins Y, **Lantos P**, Melia MT, Auwaerter P. Not So Common? Late Neuroborreliosis in a Referred Population. *Open Forum Infect Dis*. 2017 Fall; 4(Suppl 1): S588. Published online 2017 Oct 4. PMC5631351.
20. **Lantos PM**, Hoffman K, Permar SR, Jackson P, Hughes BL, Kind A, Swamy G. Neighborhood disadvantage is associated with high cytomegalovirus seroprevalence in pregnancy. *J Racial Ethn Health Disparities*. 2017 Aug 24. doi: 10.1007/s40615-017-0423-4. [Epub ahead of print] PMID: 28840519.

21. **Lantos PM**, Tsao J, Nigrovic LE, Auwaerter PG, Fowler V, Ruffin F, Foster E, Hickling G. Geographic Expansion of Lyme Disease in Michigan, 2000-2014. *Open Forum Infectious Diseases* 2017 Jan 9;4(1):ofw269. PMID: 28480261.
22. Woodworth MH, Horan JL, **Lantos PM**, Cox GM, Stout JE. Increasing *Nocardia* incidence associated with bronchiectasis at a tertiary care center. *Annals of the American Thoracic Society*. 2017 Mar;14(3):347-354. PMID: 28231023.
23. Branda JA, Strle K, Nigrovic LE, **Lantos PM**, Lepore TJ, Damle NS, Ferraro MJ, Steere AC. Evaluation of Modified Two-Tiered Serodiagnostic Testing Algorithms for Early Lyme Disease. *Clinical Infectious Diseases*. 2017 Apr 15;64(8):1074-1080. PMID: 28329259.
24. **Lantos PM**, Hoffman K, Permar S, Jackson P, Hughes B, Swamy GK. Geographic disparities in cytomegalovirus infection during pregnancy. *J Pediatric Infect Dis Soc*. 2017 Feb 14 (*E pub ahead of print*). PMID: 28201739.
25. **Lantos PM**, Hoffman K, Anderson B, Gray GC. Are persons living near industrial swine production facilities at increased risk of influenza? *Clinical Infectious Diseases*. 2016 Dec 15; 63(12):1558-1563. PMID: 27821546.
26. Paydar-Darian N, Kimia AA, **Lantos PM**, Fine AM, Gordon CD, Gordon CR, Landschaft A, Nigrovic LE. Diagnostic Lumbar Puncture Among Children with Facial Palsy in a Lyme Disease Endemic Area. *J Pediatric Infect Dis Soc*. 2016 Jul 15. PMID 27422867.
27. **Lantos PM**, Lipsett SC, Nigrovic LE. False positive Lyme disease IgM immunoblots in children. *J Pediatrics*. 2016 Jul; 174:267-269.e1. Epub 2016 May 4. PMID 27157898.
28. **Lantos PM**, Auwaerter PG, Nelson CA. Lyme disease serology. *JAMA*. 2016 Apr 26;315(16):1780-1781. PMID 27115380.
29. **Lantos PM**, Permar SR, Hoffman K, Swamy GK. The excess burden of cytomegalovirus in African-American communities: a geospatial analysis. *Open Forum Infectious Diseases* 2015 Nov 20;2(4):ofv180 PMID 26716106.
30. **Lantos PM**, Nigrovic LE, Auwaerter PG, Fowler VG, Ruffin F, Brinkerhoff RJ, Reber J, Williams C, Broyhill J, Pan WK, Gaines DN. Geographic expansion of Lyme disease in the southeastern United States, 2000-2014. *Open Forum Infectious Diseases*. 2015 Sep 27;2(4):ofv143. PMID 26550580.
31. **Lantos PM**, Branda JA, Boggan JC, Chudgar SM, Wilson EA, Ruffin F, Fowler V, Auwaerter PG, Nigrovic LE. Poor positive predictive value of Lyme disease serodiagnostic testing in an area of low disease incidence. *Clinical Infectious Diseases*. 2015 Nov 1;61(9):1374-80.PMID: 26195017.
32. Lipsett SC, Pollock NR, Branda JA, Gordon CD, Gordon CR, **Lantos PM**, Nigrovic LE. The positive predictive value of Lyme ELISA for the diagnosis of Lyme disease in children. *Pediatric Infectious Disease Journal*. 2015 Nov;34(11):1260-2. PMID: 26222064.
33. **Lantos PM**, Shapiro ED, Auwaerter PG, Baker PJ, Halperin JJ, McSweegan E, Wormser GP. Unorthodox alternative therapies marketed to treat Lyme disease. *Clinical Infectious Diseases*. 2015 Jun 15;60(12):1776-82. PMID: 2582124.

34. **Lantos PM** and Wormser GP. Chronic coinfections in patients diagnosed with chronic Lyme disease: a systematic literature review. *American Journal of Medicine*. 2014 Nov;127(11):1105-10. PMID: 24929022.
35. **Lantos PM**, Maggi R, Ferguson B, Varkey J, Park LP, Breitschwerdt EB, Woods CW. Detection of *Bartonella* species in the blood of veterinarians and veterinary technicians: A newly recognized occupational hazard? *Vector-Borne and Zoonotic Diseases*. 2014 Aug;14(8):563-70. PMID: 25072986.
36. **Lantos PM**, Auwaerter PG, Wormser GP. A systematic review of morphologic variants of *Borrelia burgdorferi* does not support a role in chronic Lyme disease. *Clinical Infectious Diseases*. 2014 Mar;58(5):663-71. PMID: 24336823.
37. **Lantos PM**, Brinkerhoff RJ, Wormser GP, Clemen R. Empiric antibiotic treatment of erythema migrans-like skin lesions as a function of geography: a clinical and cost effectiveness modeling study. *Vector-Borne and Zoonotic Diseases*. E-Pub ahead of print, October 2013.
38. Breitschwerdt EB, Hegarty BC, Maggi RG, **Lantos PM**, Aslett DM, Bradley JM. *Rickettsia rickettsii* transmission by a lone star tick, North Carolina. *Emerg Infect Dis*. 2011 May;17(5):873-5. PMID: 21529399.
39. Breitschwerdt EB, Maggi RG, **Lantos PM**, Woods CW, Hegarty BC, Bradley JM. *Bartonella vinsonii* subsp. *berkhoffii* and *Bartonella henselae* bacteremia in a father and daughter with neurological disease. *Parasites and Vectors*, 2010 Apr 8;3(1):29. PMID: 20377863.
40. **Lantos PM**, Ahoudi AD, Bei AK, Jennings CV, Sarr O, Ndir O, Wirth DF, Mboup S, Duraisingh MT. Erythrocyte invasion profiles are associated with a common invasion ligand polymorphism in Senegalese isolates of *Plasmodium falciparum*. *Parasitology*, **136**(1): 1-9, 2009.
41. Koutros S, Holford TR, Hahn T, **Lantos PM**, McCarthy PL, Risch HA, Swede H. Excess diagnosis of non-Hodgkin's lymphoma during spring in the USA. *Leukemia & Lymphoma*, **48**(2): 357-366, 2007.

PRACTICE GUIDELINES

1. **Lantos PM** et al. Clinical Practice Guidelines by the Infectious Diseases Society of America (IDSA), American Academy of Neurology (AAN), and American College of Rheumatology (ACR): 2020 Guidelines for the Prevention, Diagnosis and Treatment of Lyme Disease.
 - a. *Clinical Infectious Diseases* 2021 Jan 23;72(1):e1-e48, PMID: 33417672.
 - b. *Arthritis and Rheumatology* 2020 Nov 29, PMID: 33251716.
 - c. *Arthritis Care Res (Hoboken)* (Hoboken). 2021 Jan;73(1):1-9, PMID: 33251700.
 - d. *Neurology* 2021 Feb 9;96(6):262-273, PMID: 33257476.
2. Krause PJ, Auwaerter PA, Bannuru RR, Branda JA, Falck-Ytter YT, **Lantos PM**, Lavergne V, Meissner HC, Osani MC, Rips JG, Sood SK, Vannier E, Vaysbrot EE, Wormser GP. Clinical Practice Guidelines by the Infectious Diseases Society of America (IDSA): 2020 Guideline on Diagnosis and Management of Babesiosis. *Clinical Infectious Diseases* 2021 Jan 27;72(2):185-189, PMID: 33501959.
3. **Lantos PM**, Charini WA, Duray PH, Lantos PM, Medoff G, Moro MH, Mushatt DM, Parsonett J, Sanders JW, Baker CJ. **Final Report of the Lyme Disease Review Panel of the Infectious Diseases Society of America (IDSA)**. *Clinical Infectious Diseases* 2010 May 26 (Epub ahead of print) 51:1-5. Unabridged report at https://www.idsociety.org/Lyme_Final_Report/.

REVIEW ARTICLES AND EDITORIALS

1. **Lantos PM.** Chronic Lyme disease. *Infectious Disease Clinics of North America.* 2015; 29(2): 325-40.
2. Willen SM, Thornburg CD, **Lantos PM.** Travelers with sickle cell disease. *Journal of Travel Medicine.* 2014 Sep-Oct;21(5):332-9.
3. Melia MT, **Lantos PM,** and Auwaerter PG. Lyme disease: authentic imitator or wishful imitation? *JAMA Neurology.* 2014 E-pub ahead of press.
4. **Lantos PM** Lyme disease vaccination: Are we ready to try again? *Lancet Infectious Diseases.* 2013 Aug;13(8):643-4.
5. **Lantos, PM** Chronic Lyme Disease: the Science and the Controversy. *Expert Reviews in Anti-Infective Therapy* July, 9(7):787-97, July 2011.
6. Krause P, Daily J, Telford S, Vannier E, **Lantos P,** and Spielman A. Shared features in the pathobiology of babesiosis and malaria. *Trends in Parasitology,* **23**(12): 605-610, Dec 2007.
7. **Lantos P** and Krause PJ. Babesiosis. *Pediatric Annals* **31**(3): 192-197, 2002.
8. **Lantos PM** and Krause PJ. Ehrlichiosis in Children. *Seminars in Pediatric Infectious Diseases* **13**(4): 249-256, 2002.

BOOK CHAPTERS

1. Jaskot PB, Duffy E, **Lantos P,** and Knowles A, “*The Scale of Genocide: The Building and Spaces of the Holocaust, from the Micro to the Macro Dimensions*”. In Cole T, Gigliotti S, and Stone D (eds.) **Holocaust Geographies, 2019** [in press]
2. **Lantos PM** and McKinney R. *Rickettsial and Ehrlichial Diseases.* In Cherry JD et. al (eds). **Feigin and Cherry’s Textbook of Pediatric Infectious Diseases, 8^h Edition. 2018.**
3. **Lantos PM** (primary contributor / leading content expert). *Babesiosis.* In: Red Book: 2018 Report of the Committee on Infectious Diseases, 31st Edition. Elk Grove Village, IL: American Academy of Pediatrics.
4. **Lantos PM** (primary contributor / leading content expert). *Lyme Disease.* In: Red Book: 2018 Report of the Committee on Infectious Diseases, 31st Edition. Elk Grove Village, IL: American Academy of Pediatrics.
5. **Lantos PM** (primary contributor / leading content expert). *Borrelia Infections.* In: Red Book: 2015 Report of the Committee on Infectious Diseases, 30th Edition. Elk Grove Village, IL: American Academy of Pediatrics.
6. **Lantos PM** (primary contributor / leading content expert). *Lyme Disease.* In: Red Book: 2015 Report of the Committee on Infectious Diseases, 30th Edition. Elk Grove Village, IL: American Academy of Pediatrics.
7. **Lantos PM** and McKinney R. *Rickettsial and Ehrlichial Diseases.* In Cherry JD et. al (eds). **Feigin and Cherry’s Textbook of Pediatric Infectious Diseases, 7th Edition.** Philadelphia: Elsevier, 2013.

8. **Lantos P** and Krause PJ: *Lyme disease coinfections: Anaplasmosis and Babesiosis*. In Sood S (ed). **Lyme Borreliosis in Europe and North America**. Hoboken, New Jersey: Wiley-Blackwell, 2011, pp 149-158.
9. **Lantos P** and Krause PJ. *Babesiosis*. In DJ Richardson and PJ Krause (eds.), **North American Parasitic Zoonoses**. Norwell, Massachusetts: Kluwer Academic Publishers, 2003, pp 151-164.
10. **Lantos, Paul M**. *Whispers from the Third Generation*, in: Takakuwa K, ed. **What I Learned in Medical School: Personal Stories of Young Doctors**. Los Angeles: University of California Press, 2004.

CORRESPONDENCE

1. **Lantos PM**, Charini WA, Duray PH, Lantos PM, Medoff G, Moro MH, Mushatt DM, Parsonett J, Sanders JW, Baker CJ. Response to Johnson and Stricker (correspondance). *Clinical Infectious Diseases* 2010 Nov 1. 51(9):1109.
2. **Lantos PM**. Safety concerns and the future of Lyme disease vaccination. *Lancet Infectious Diseases* 2014 Jan;14(1):13.
3. Melia MT, **Lantos PM**, Auwaerter PG. Laboratory testing for lyme neuroborreliosis-reply. *JAMA Neurology*. 2015 Jan 1;72(1):126.

GRANTS

- | | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018 | National CMV Foundation Early Career Research Award (\$10,000)
PI: Dr. Paul Lantos
<i>Geostatistically-guided decision modeling to reduce health disparities from congenital cytomegalovirus</i> |
| 2017 | Duke Children’s Caring for the Complex Patient Grant (\$25,000)
PI: Dr. Vicky Parente
<i>The Duke Children’s “CARE” (CAring for the Region’s Exceptional children) network: identifying community needs for children with medical complexity and high resource utilization.</i> |
| 2016-2020 | Duke Education and Research Initiatives in China grant (\$20,000)
PI: Dr. Paul Lantos
<i>GIS training workshop for Global Health students at Duke-Kunshan University and public health workers in Mongolia.</i> |
| 2014-2017 | KL2 Mentored Clinician Scientist Career Development Award
Duke University CTSA
National Center for Advancing Translational Sciences of the NIH
<i>Improving the diagnosis of Lyme disease in the Southeastern United States: Integrating Bayesian methodology into diagnostic testing and surveillance</i> |
| 2005-2007 | American Society of Tropical Medicine and Hygeine / Burroughs-Wellcome Fund Fellowship in Tropical Infectious Diseases
<i>Erythrocyte invasion pathways in Plasmodium falciparum</i> |

INVITED PRESENTATIONS

- July 28, 2020* *Lyme Disease in the Southeast*
Pediatric Grand Rounds: Duke University
Durham, NC
- Sept 23, 2019* *Graduate Seminar: GIS and Spatial Tools for Disease Mapping*
Global Health Program
Duke-Kunshan University
Kunshan, China
- Sept 18, 2019* *Keynote Address: GIS and Spatial Tools for Disease Mapping*
6th International Conference on One Health
Ulaanbataar, Mongolia
- Jan 7, 2019* *GIS and Spatial Tools for Infectious Diseases Mapping*
Duke University Infectious Diseases Grand Rounds
Durham, NC
- Oct 4, 2018* *Lyme disease testing and uncertainty* (Pediatric ID Clinic Session)
Update on the IDSA-AAN-ACR Lyme disease Guideline (Guideline Session)
Infectious Diseases Society of America meeting
San Francisco, CA
- May 10, 2018* *Lyme Disease and Spatial Uncertainty in Ireland*
Keynote Address: Infectious Diseases Society of Ireland
Galway, Ireland
- Mar 24, 2017* 1. *Spatial Uncertainty and Clinical Decision Making for Lyme Disease*
2. *Shared Features in the Pathogenesis of Babesiosis and Malaria*
German Borreliosis Society
Erfurt, Germany
- Feb 8, 2017* *GIS and Spatial Tools for Infectious Diseases Mapping*
Duke University Informatics Seminar
Durham, NC
- Feb 1, 2017* *GIS and Spatial Tools for Infectious Diseases Mapping*
FHI360
Durham, NC
- Jan 25, 2017* *Patients in Space: Geographic Information Systems and Clinical Research*
Pediatric Grand Rounds
Yale University School of Medicine
New Haven, CT
- Nov 16, 2016* *GIS and Spatial Tools for Infectious Diseases Mapping*
Duke-Kunshan University
Kunshan, China
- Sept 23, 2016* *GIS and Spatial Tools for Infectious Diseases Mapping*
Pediatric Grand Rounds
Georgetown University
Washington, DC

- July 28, 2016* *Lyme Disease in the Southeast*
 Pediatric Medical Grand Rounds
 University of Alabama, Birmingham
- July 12, 2016* *GIS and Spatial Tools for Infectious Diseases Mapping*
 Special Seminar, Division of Infectious Diseases
 Boston Children's Hospital
 Boston, MA
- June 14, 2016* *Early peaking of influenza near industrial swine sites during the H1N1 pandemic, 2009-2011*
 5th International Conference on One Health
 Ulaanbataar, Mongolia
- May 14, 2016* *Geographic Uncertainty and Clinical Decision Making for Lyme Disease*
 MGH Lyme Disease Conference
 Massachusetts General Hospital, Boston, MA
- Oct 9, 2015* *Geographic Uncertainty and Clinical Decision Making for Lyme Disease*
 Invited Symposium: Tick-Borne Diseases
 Speaker and session moderator
 Infectious Diseases Society of America annual meeting
 San Diego, CA
- Sept 27, 2015* Poster presentations:
- *Unorthodox alternative therapies marketed to patients with Lyme disease*
 - *Poor positive predictive value of Lyme disease serodiagnostic testing in an area of low disease incidence*
 - *Geographic expansion of Lyme disease in the southeastern United States, 2000-2014*
 - *The positive predictive value of Lyme ELISA for the diagnosis of Lyme disease in children*
 - *Lyme Disease Consultations at a Mid-Atlantic Referral Center, 2000-2013*
- International Conference on Lyme Borreliosis
 Vienna, Austria
- May 26, 2015* 1. *Methods, data, and analytic strategies for geospatial analysis*
 (Keynote address)
2. *GIS and Human Health Data*
 Geospatial Tools for Research and Public Policy in Environmental Health
 Mongolian National University School of Public Health
 Ulaanbataar, Mongolia
- Jan 9, 2014* *The Challenge of Lyme Disease in the Southeast*
 Pediatric Grand Rounds: UNC Chapel Hill School of Medicine
 Chapel Hill, NC
- Sept 8, 2013* *The Challenge of Lyme Disease in the Southeast*
 Infectious Diseases Grand Rounds: Johns Hopkins Medical Institutions
 Baltimore, MD
- March 13, 2013* *Chronic Lyme Disease: Fact or Fiction?*

Pediatric Grand Rounds: Hackensack University Medical Center
Hackensack, NJ

- July 24, 2012* *The Challenge of Lyme Disease in the South*
North Carolina One Health Collaborative Intellectual Exchange Group
Cary, NC
- June 20, 2012* *Tick-borne Diseases in North Carolina*
Pediatric Grand Rounds: Moses Cone Health System
Greensboro, NC
- April 23, 2012* *Burning Tick-borne Disease Questions in North Carolina*
Katz-Wilfert Update Course in Pediatric Infectious Diseases
Durham, NC
- Dec 8, 2010* *Lyme Disease*
North Carolina One Medicine Symposium
Durham, NC
- Nov 22, 2010* *Lyme Disease: When to Worry and What to Do*
Infectious Diseases in Children Symposium
New York, NY
- Nov 21, 2010* *Tick-borne disease*
American Academy of Pediatrics
Pediatric Review and Education Program podcast
- Sept 14, 2010* *Lyme Disease: A Pediatric Perspective*
Pediatric Grand Rounds: NC State University Student Health
Raleigh, NC
- Sept 8, 2010* *Lyme Disease: A Pediatric Perspective*
Pediatric Grand Rounds: Moses Cone Health System
Greensboro, NC
- August 3, 2010* *Lyme Disease: A Pediatric Perspective*
Pediatric Grand Rounds: Duke University Medical Center
Durham, NC
- July 16, 2010* *Lyme Disease in the Spotlight*
Medical Grand Rounds: Duke University Medical Center
Durham, NC
- May 21, 2010* *Findings of the IDSA Lyme Disease Review Panel*
NC Department of Public Health Vector-Borne Disease Working Group
Raleigh, NC
- May 12, 2010* *Rocky Mountain Spotted Fever, Ehrlichiosis, and Lyme Disease*
Pediatric Grand Rounds: Rex Hospital
Raleigh, NC
- April 24, 2010* *Preventing Malaria in Travelers*
Katz-Wilfert Update Course in Pediatric Infectious Diseases
Durham, NC

- Nov 4, 2006* *Avoiding pitfalls in imported malaria*
Harvard / Boston University Infectious Diseases CME course
Cambridge, MA
- Nov 13, 2006* *An invasion ligand polymorphism alters erythrocyte invasion in Senegalese isolates of Plasmodium falciparum*
American Society of Tropical Medicine and Hygiene Annual Meeting
Atlanta, GA
- Oct 2006* *Preventing Malaria in Travelers*
Current Concepts in Infectious Diseases CME Course
Harvard Medical School and Boston University School of Medicine
Cambridge, MA
- June 2005* *Update on the Prevention of Rheumatic Fever*
Harvard Combined Infectious Diseases Conference
Boston, MA
- Feb 2005* *Granulomatous Infections in Patients on TNF-alpha Inhibitors*
Harvard Combined Infectious Diseases Conference
Boston, MA
- Jan 2005* *Atypical mycobacterial disease in a patient on a TNF-alpha Inhibitor*
Infectious Disease Grand Rounds, Boston Medical Center
Boston, MA
- Nov 2004* *Current Issues in the Prevention of Pertussis*
Harvard Combined Infectious Diseases Conference
Boston, MA
- Feb 2004* *A Bad Day at the Lab: A Case of Arsenic Poisoning*
Medical Grand Rounds: University of Connecticut Health Center
Farmington, CT
- Oct 31, 2003* *Imported hydatid cyst disease: report of two cases*
Poster session: CT Chapter ACP Scientific Meeting
Southington, CT
- Oct 16, 2003* *Gastroparesis in an adult with cystic fibrosis*
Physicians' Grand Rounds: North American Cystic Fibrosis Conference
Anaheim, CA

PROFESSIONAL ACTIVITIES

LEADERSHIP ACTIVITIES AND COMMITTEES

- 2019-present* Programs and Meetings Committee
Pediatric Infectious Diseases Society
- 2014-present* Co-Chair, IDSA-AAN-ACR Lyme Disease Practice Guidelines
Infectious Diseases Society of America

- 2014-present* Co-Chair, Babesiosis Practice Guidelines
Infectious Diseases Society of America
- 2009-2012* Standards and Practice Guidelines Committee
Infectious Diseases Society of America
- 2009-2010* Lyme Disease Guidelines Review Panel
Infectious Diseases Society of America

PROFESSIONAL ORGANIZATIONS

- 2009-present* International Society of Travel Medicine (ISTM)
- 2004-present* Pediatric Infectious Diseases Society (PIDS)
- 2004-present* Infectious Diseases Society of America (IDSA)
- 2003-present* American Society of Tropical Medicine and Hygiene (ASTMH)
- 2002-present* American College of Physicians (ACP-ASIM)
- 2000-present* American Academy of Pediatrics (AAP)

INTERNATIONAL AND VOLUNTEER EXPERIENCE

- Sept 2019* GIS Training Workshop
National Center for Public Health, Ulaanbataar, Mongolia
- Sept 2019* GIS Training Workshop
Duke-Kunshan University, Kunshan, China
- Nov 2016* GIS Training Workshop
Duke-Kunshan University, Kunshan, China
- June 2016* GIS Training Workshop
Field Epidemiology Training Program
National Center for Communicable Diseases, Ulaanbataar, Mongolia
- Mar 2011* Mvomero District, Tanzania
Preliminary data collection for a malaria larviciding and rapid diagnostic testing trial in 24 rural Tanzanian villages
- Nov-Dec 2005* Universite Cheikh Anta Diop, Dakar, Senegal
Laboratory-based malaria field research in West Africa
- Aug 2002* Aninwah Medical Centre, Kumasi, Ghana
Outpatient consultation and inpatient care at an urban West African hospital
- Aug 2001* Amazon Medical Project, Amazon Rainforest, Loreto Region, Peru
Comprehensive outpatient medical care at a remote jungle clinic
- Jan-Feb 2000* Medical Research Council, Fajara, The Gambia
Hospital and clinical research facility in West Africa
Clinical research project with malnourished pediatric inpatients

Oct 1999 Alaska Native Tribal Health Consortium, Juneau, Alaska
Urban family practice serving Alaska Natives and Native Americans

1996-2000 Salvation Army Marshall House Shelter, Hartford, CT
Shelter for homeless children and mothers
Clinic manager (1999-2000) and frequent volunteer

1999 Migrant Farmworkers Outreach Project, Hartford, CT
Clinic for Latin American migrant workers on Hartford-area farms

INVITED PEER-REVIEWS

JAMA	BMC Infectious Diseases
Clinical Infectious Diseases	American J of Tropical Medicine and Hygiene
Applied Geography	PLOS One
Canadian Journal of Infectious Diseases	Diagnostic Microbiology and Infectious Diseases
Bulletin of Mathematical Biology	Lancet
Lancet Infectious Diseases	Cleveland Clinic Journal of Medicine
Emerging Infectious Diseases	International Journal of Infectious Diseases
International Medical Case Reports Journal	Journal of Pediatric Infectious Diseases
Journal of Medical Entomology	Ticks and Tick-borne Diseases
Journal of Clinical and Translational Science	Future Microbiology
Women's Health Issues	Vector-Borne and Zoonotic Diseases
Functional Foods	

RESEARCH ACTIVITIES

Current Projects

- 1) Spatial distribution of animal rabies in Mongolia
- 2) Intestinal parasitoses among pastoralist households in Mongolia
- 3) Spatiotemporal modeling of COVID-19 infections
- 4) Modeling COVID-19 response policy
- 5) Geostatistical modeling of Lyme disease surveillance data
- 6) Satellite correlates of Lyme disease risk in southwest Virginia
- 7) Geospatial distribution of dengue fever in Halle, Sri Lanka
- 8) A multicenter spatial analysis of congenital cytomegalovirus

EDUCATIONAL ACTIVITIES

2019 GIS Workshop, Duke-Kunshan University, Kunshan, China

2019 GIS Workshop, National Centre for Public Health, Ulaanbataar, Mongolia

2016 GIS Workshop, Duke-Kunshan University, China

2016 GIS Workshop, Field Epidemiology Training Program, Ulaanbataar, Mongolia

2008-2010 American Board of Pediatrics, Infectious Disease Sub-Board
Question writer for certification exam in Pediatric Infectious Diseases

Spring 2007 Faculty
HMS1 Immunology, Microbiology, and Pathology course

Small group facilitator for first year medical students
Harvard Medical School
Boston, MA

Fall, 2005-2007 Guest faculty: Malaria, Yellow Fever, and Mosquito-borne diseases
Freshman seminar: Infectious Diseases and Society
Harvard College, Cambridge, MA

FOREIGN LANGUAGES

Spanish (proficient)