

Justin V. Remais, Ph.D., M.S.

Professor and Chair, Division of Environmental Health Sciences, University of California, Berkeley

EDUCATION

- 2006 **University of California, Berkeley**, Ph.D. in Environmental Health Sciences.
2002 **University of California, Berkeley**, M.S. in Civil and Environmental Engineering
1998 **University of California, Berkeley**, B.A. in Environmental Science

PROFESSIONAL EXPERIENCE

- 2020-Present **Professor**, Environmental Health Sciences, University of California, Berkeley
2018-Present **Chair**, Environmental Health Sciences, University of California, Berkeley
2016-2020 **Associate Professor**, Environmental Health Sciences, University of California, Berkeley
2013-2015 **Associate Professor**, Department of Environmental Health, Emory University
2008-2015 **Adjunct Professor**, Civil and Environmental Engineering, Georgia Institute of Technology
2008-2013 **Assistant Professor**, Department of Environmental Health, Emory University

SELECTED PEER-REVIEWED PUBLICATIONS

- Cheng Q, Trangucci R, Nelson K, Fu W, Collender P, Head J, Hoover C, Skaff N, Li T, Li X, You Y, Li T, Zhang H, Fang L, Liang S, Yang C, He J, Zelner J, **Remais J**. Prenatal and early life exposure to the Great Chinese Famine increases the risk of pulmonary tuberculosis in adulthood across two consecutive generations, *Proceedings of the National Academy of Sciences*, doi.org/10.1073/pnas.2008336117, 2020.
- Skaff N, Cheng Q, Clemesha R, Collender P, Gershunov A, Head J, Hoover C, Lettenmaier D, Rohr J, Snyder R, **Remais J**. Thermal thresholds increase the vulnerability of coastal Los Angeles to temperature-linked increases in West Nile virus transmission, *Proceedings of the Royal Society B*, 287:20201065, doi.org/10.1098/rspb.2020.1065, 2020.
- Hoover C, Rumschlag S, Strgar L, Arakala A, Gambhir M, de Leo G, Sokolow S, Rohr J, **Remais J**. Effects of agrochemical pollution on schistosomiasis transmission: a systematic review and modeling analysis, *Lancet Planetary Health*, 4(7):e280-e291, 2020.
- Cheng Q, Collender P, Heaney A, Li X, Dasan R, Li C, Lewnard J, Zelner J, Liang S, Chang H, Waller L, Lopman B, Yang C, **Remais J**. The DIOS framework for optimizing infectious disease surveillance: numerical methods for simulation and multi-objective optimization of surveillance network architectures, *PLoS Computational Biology*, doi.org/10.1371/journal.pcbi.1008477, 2020.
- Head J, Collender P, Lewnard J, Skaff N, Li T, Cheng Q, Baker J, Li C, Chen D, Ohringer A, Liang S, Yang C, Hubbard A, Lopman B, **Remais J**. Early evidence of inactivated enterovirus 71 vaccine impact against hand, foot, and mouth disease in a major center of ongoing transmission in China, 2011-2018: a longitudinal surveillance study, *Clinical Infectious Diseases*, doi.org/10.1093/cid/ciz1188, 2019.
- Hoover C, Sokolow S, Kemp J, Sanchirico J, Lund A, Jones I, Higginson T, Riveau G, Savaya-Alkalay A, Coyle S, Wood C, Micheli F, Casagrandi R, Mari L, Gatto M, Rinaldo A, Perez-Saez J, Rohr J, Sagi A, **Remais J**, DeLeo G. Modelled effects of prawn aquaculture on poverty alleviation and schistosomiasis control, *Nature Sustainability*, 2, 611–620, 2019.
- Collender P, Morris C, Glenn-Finer R, Acevedo A, Chang H, Trostle J, Eisenberg J, **Remais J**. Mass gatherings drive diarrheal disease transmission among rural communities in coastal Ecuador, *American Journal of Epidemiology*, doi.org/10.1093/aje/kwz102, 2019.
- Cavicchioli R, Timmis K, ... **Remais J**, ... Webster N, and Welch D, Scientists' Warning to Humanity: microorganisms and climate change, *Nature Reviews Microbiology*, doi.org/10.1038/s41579-019-0222-5, 2019.
- Rohr J, Barrett C, Civitello D, Craft M, Delius B, DeLeo G, Hudson P, Jouanard N, Nguyen K, Ostfeld R, **Remais J**, Riveau G, Sokolow S, Tilman D. Emerging human infectious diseases and the links to global food production, *Nature Sustainability*, 2, 445–456, 2019.
- Levy M, Collender P, Carlton E, Chang H, Strickland M, Eisenberg J, **Remais J**. Spatiotemporal error in rainfall data: consequences for epidemiologic analysis of waterborne diseases, *American Journal of Epidemiology*, 188(5): 950–959, 2018.

- Kraay A, Lin N, Brouwer A, Collender P, **Remais J**, Eisenberg J. Modeling environmentally-mediated rotavirus transmission: the role of temperature and hydrologic factors, *Proceedings of the National Academy of Sciences*, 201719579; DOI: 10.1073/pnas.1719579115, 2018.
- Yang J, Siri J, **Remais J**, Cheng Q, ..., Xu B, and Gong P. Healthy Cities: unlocking the power of cities in building a healthy China, *The Lancet*, 391(10135): 2140-2184, 2018.
- Sokolow S, Jones I, Jocque M, La D, Cords O, Knight A, Lund A, Wood C, Lafferty K, Hoover C, Collender P, **Remais J**, Lopez-Carr D, Fisk J, Kuris A, De Leo G. Nearly 400 million people are at higher risk of schistosomiasis because dams block the migration of snail-eating river prawns, *Philosophical Transactions of the Royal Society B*, 372(1722), 2017.
- Jiang B, Liang S, Peng Z, Cong H, Levy M, Cheng Q, Wang T, **Remais J**. Transport and public health in China: the road to a healthy future, *The Lancet*, 390(10104): p1781–1791, 2017.
- Brouwer A, Eisenberg MC, **Remais J**, Collender PA, Meza R, Eisenberg J. Modeling biphasic environmental decay of pathogens and implications for risk analysis, *Environmental Science & Technology*, 51(4), 2196, 2017.
- Steele M, **Remais J**, Gambhir M, Glasser J, Handel A, Parashar U, Lopman B. Modeling norovirus transmission and strategies for vaccination in the United States, *Epidemics*, 17, 42-49, 2016.
- Remais J**, Jackson R. Determinants of Health. Chapter 2.1 in Oxford Textbook of Global Public Health (eds. Roger Detels, Martin Gulliford, Quarraisha Abdool Karim, and Chorh Chuan Tan), 6th edition, Oxford University Press, 2015.
- Hodges M, Belle J, Carlton C, Liang S, Li H, Luo W, Freeman MC, Liu Y, Gao Y, Hess J, **Remais J**. Delays in reducing waterborne and water-related infectious diseases in China under climate change, *Nature Climate Change*, 4(12):1109-15, 2014.
- Remais J**, Hess J, Ebi K, Markandya A, Balbus J, Wilkinson P, Haines A, Chalabi Z. Estimating the health effects of greenhouse gas mitigation strategies: addressing parametric, model and valuation challenges, *Environmental Health Perspectives*, 122(5):447-55, 2014.
- Moore J, **Remais J**. Metabolic models for examining ecological responses to environmental change: structural, parametric, and experimental issues, *Acta Biotheoretica*, 62(1):69-90, 2014.
- Wu J, Dhingra R, Gambhir M, **Remais J**. Sensitivity analysis of infectious disease models: methods, advances and their application, *Journal of the Royal Society Interface*, 10(86), 2013.
- Remais J**, Zeng G, Li G, Tian L, Engelgau M. Convergence of non-communicable and infectious diseases in low- and middle-income countries, *International Journal of Epidemiology*, 42(1): 221-227, 2013.
- Carlton E, Liang S, McDowell J, Li H, Luo W, **Remais J**. Regional disparities in the burden of disease attributable to unsafe water and sanitation in China, *Bulletin World Health Organization*, 90: 578-587, 2012.
- Gong P, Liang S, Carlton E, Jiang Q, Wu J, Wang L, **Remais J**. Urbanization and health in China, *The Lancet*, 379(9818):843-852, 2012.
- Remais J**, Eisenberg J. Balance between clinical and environmental responses to infectious diseases. *The Lancet*, 379(9824):1457-1459, 2012.
- Remais J**, Xiao N, Akullian A, Qiu D, and Blair D. Genetic assignment methods for gaining insight into the management of infectious disease by understanding vector, host and pathogen movement. *PLoS Pathogens*, 7:4, 2011.
- Remais J**, Akullian A, Lu D, Seto E. Analytical methods for quantifying environmental connectivity for the control and surveillance of infectious disease spread. *J Roy Soc Int*, 7(49):1181-93, 2010.
- Remais J**, Zhong B, Carlton EJ, Spear RC. Estimating the influence of time-varying environmental factors on macroparasite transmission in two endemic regions. *Epidemics*, 1(4):213-220, 2009.

Notes: Author underlined indicates mentored student/staff/postdoc

SELECTED TEACHING

2017-Present **Health Implications of Global Climate Change** (PH 271G), Environmental Health Sciences, University of California, Berkeley (Spring semester)

- 2016-Present **Environmental Determinants of Infectious Disease** (PH273), Environmental Health Sciences, University of California, Berkeley (Fall semester)
- 2009-2015 **Global Climate Change: Health Impacts and Response** (EH582), Hubert Department of Global Health; Department of Environmental Health, Emory University (Fall semester)
- 2009-2015 **Environmental Determinants of Infectious Disease** (EH750), Department of Environmental Health, Emory University (Spring semester)
- 2010-2015 **Advanced Seminar in Climate Change and Health** (EH586), Department of Environmental Health, Emory University (Spring semester)

RECENT RESEARCH SUPPORT

R01AI148336 (Remais, PI; **\$3,910,548 total costs**)

12/09/2019 – 11/30/2024

NIH-NIAID “Integrating epidemiologic and environmental approaches to understand and predict *Coccidioides* exposure and coccidioidomycosis emergence”

R01AI125842 (Remais, contact PI, with mPIs Waller and Chang at Emory; **\$3,645,648 total costs**)

02/01/2017 – 01/31/2022

NIH-NIAID “Spatio-temporal data integration methods for infectious disease surveillance”

MRP-17-446315 (Remais co-PI w/Lettenmaier, UCLA, Gershunov, UCSD; **\$2,148,949 direct costs**)

1/1/2017 – 12/31/2020

University of California, Office of the President MRPI “Drought and Public Health in a Warming California”

1R01TW010286 (Remais, co-PI with J. Rohr at USF; **\$2,499,676 total costs**)

07/01/15 – 06/30/20

NIH-Fogarty/NSF Ecology and Evolution of Infectious Diseases Program "Using community ecology theory to predict the infectious disease consequences of agricultural expansion in Senegal"

NSF-WSC (Remais, PI; **\$2,337,153 total costs**)

07/01/14 – 06/30/19

NSF Water Sustainability and Climate Program "Analytical methods for estimating the joint climatological-social drivers of water quality and supply in contrasting tropical zones: Ecuador and China."