#### Mark L. Wilson

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Department of Ecology and Evolutionary Biology
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## **Academic Training**

**Hiram College**, Hiram, Ohio, Departments of Biology and Psychology, B.A., concentration in Psychobiology, 1968-72.

**Pennsylvania State University**, Department of Poultry Sciences, concentration in Behavioral Ecology, 1972-73.

**University of Chicago**, Department of Biology, Program on Evolutionary Biology, concentration in Evolutionary Biology, 1974-75.

**Harvard University**, School of Public Health, Department of Population Sciences, Sc.M., concentration in Human Ecology, 1979-80.

**Harvard University**, School of Public Health, Department of Population Sciences, Sc.D., concentration in Vector Ecology, 1980-85.

# Positions Held

Professor	Department of Epidemiology Department of Ecology and Evolutionary Biology The University of Michigan	2004 - present
Director	Global Health Program School of Public Health The University of Michigan	2002 - 2007
Associate Professor	Department of Epidemiology The University of Michigan	1997 - 2004
Associate Professor and Associate Chair	Department of (Ecology and Evolutionary) Biology The University of Michigan	1997 - 2004 2000 - 2002
Associate Professor	Yale University School of Medicine Department of Epidemiology and Public Health Chair, Committee on International Health Co-Director, Center for Earth Observation	1995 - 1996 1995 - 1996 1993 - 1996

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Assistant Professor	Yale University School of Medicine Department of Epidemiology and Public Health	1991 - 1995
Chargé de Recherche	Institut Pasteur, Dakar, Sénégal Department of Medical Entomology	1987 - 1990
Research Associate	Harvard School of Public Health Departments of Population Sciences and Tropical Public Health	1986 - 1990
Research Fellow	Harvard School of Public Health Departments of Population Sciences and Tropical Public Health	1985 - 1986
Faculty Advisor	Skidmore College University Without Walls	1978 - 1983
Visiting Assistant Professor	Wesleyan University Graduate Liberal Studies Program	1981
Research Assistant	Harvard School of Public Health Departments of Population Sciences and Tropical Public Health	1975 - 1981
Core Faculty	Goddard College, Cambridge, MA Goddard-Cambridge Graduate Program	1978 - 1979
Research Assistant	University of Chicago Department of Biology	1974 - 1975
Research Assistant	Pennsylvania State University Department of Poultry Science	1972 - 1973
Primate Biologist	Emory University Yerkes Primate Research Center	1972 - 1973
	Awards and Honors	
NIAID Predoctoral Fellow, Harvard School of Public Health 1983 - 1985		
Chace Fund Predoctoral Fellow, Harvard School of Public Health		1981 - 1983
Soil and Health Foundation Research Fellow		1978 - 1979
NIMH Behavioral Biology Trainee, University of Chicago		1974 - 1975
NSF Undergraduate Research Award, Hiram College		1970

# Professional Service (recent)

# National/International

Ad Hoc Reviewer: IOM report on "Global climate change and extreme weather events: Understanding the contributions to the emergence, reemergence, and spread of infectious disease.	2008
Ad Hoc Reviewer: USAID Higher Education for Development grant applications	2008
Member, External Advisory Board, Center for International Training and Research, School of Public Health, University of Texas – Houston	2007 - present
Member, "Earth System Science for Decisions about Human Welfare: Contributions of Remote Sensing," National Academy of Sciences	2005 - 2007
Member, Scientific Counsel, Environment and Health Program, French National Research Agency	2005 - present
Chair, Human Health and Security Panel, Earth Science and Applications from Space, Space Studies Board, National Research Council	2004 - 2006
Member, Fogarty/NLM Review Panel on Informatics Training for Global Health	2004
Member, Advisory Board, Climate-Health Program Development Committee, U.S. National Center for Atmospheric Research	2003 - present
Co-Organizer, National Center for Ecological Analysis and Synthesis, Study group on "Global Change and Infectious Disease"	2003 - 2006
Ad Hoc Reviewer: US Army Medical Research and Materiel Command	2003
Ad Hoc Reviewer: "Groupement pour le Developpement de la Recherche sur L'environnement Global dans le Bassin Mediterraneen et L'afrique Subtropicale"	2003
NIH (NIAID) Special Emphasis Panel on Emerging Viral and Prion Diseases	2002
Ad Hoc Reviewer: AIBS- USAMRAA Grant Proposals	2002
Member, NRC Committee to Review NASA's Earth Science Enterprise Applications Plan	2002
Institute of Medicine panel on "Emerging Microbial Threats in the 21st Century"	2001 - 2003
American Society of Tropical Medicine and Hygiene Elected Councilor Nominations Committee, Member American Committee of Medical Entomology, Member and Chair	2001 - 2005 1996 - 1999 1992 - 1996
Scientific Advisor, Institut de Research pour le Developpement	1999 - present
NRC panel on "Climate, Ecosystems, Infectious Diseases, and Human Health"	1999 - 2001

NIH - Ad Hoc Review (International Collaborations in Infectious Disease)	1999
CDC "Working group to establish research priorities for vector-borne and zoonotic diseases."	1999
NIH / NLM - Ad Hoc Review Committee (Medical Informatics)	1998
Technical Review Consultant, USAID Child Survival Project	1994 - 1995
NIH / NIAID Tropical Medicine and Parasitology Study Section member	1994 - 2004
External Examiner for Doctoral Dissertations University of Ghana (Judith Stephens) University of Paris VI (Philip Guerin) University of Paris VI (Judith Legrand) Notre Dame University (Jennifer Schneider) University of Paris VI (Cecile Viboud) Swedish University of Agricultural Sciences (Hans J. Overgaard) University of Copenhagen (Rene Bodker)	2009 2006 2006 2006 2003 2001 2000
<u>University / State</u>	
Co-Director, Robert Wood Johnson Health & Society Scholars Program	2009 - present
Faculty Associate, Center for Global Health, University of Michigan	2009 - present
Steering Committee, African Studies, CAAS, University of Michigan	2005 - present
Steering Committee, U of M Global Health Research and Training Initiative	2005 - present
Search Committee, Co-Director, Michigan Bioterrorism Preparedness Initiative	2003 - 2004
Institutional Review Board – Health Sciences, University of Michigan	2002 - present
Steering Committee, Robert Wood Johnson Health and Society Scholars Program	2002 - present
Alcoa Global Diversity Internship Travel Grants (University of Michigan) Review Committee and Seminar Convener	2001 - 2002
International Institute, University of Michigan, Executive Committee member	2000 - 2003
Environmental Research Colloquium, Steering Committee (OVPR)	1999 - 2002
Environmental Issues and Research on Campus, Steering Committee (OVPR)	1999 - 2002
Research Council, School of Public Health, University of Michigan	1998 - 2003
Population-Environment Program Symposium on "Migration, Environmental Change and Security" advisor and member	1998 - 2000
Governor's Rabies Advisory Committee, State of Michigan	1997 - 2002
University Committee on Spatial Analysis, Office of Vice President for Research	1997 - 2001

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# **Departmental / School of Public Health**

Executive Committee, School of Public Health	2010 - present
Affiliated Faculty, Center for Social Epidemiology and Population Health	2007 - present
Steering Committee, Global Health Certificate, University of Michigan	2007 - present
Steering Committee, Cancer Epidemiology Education in Special Populations	2006 - present
Search Committee, Assistant Professor, Dept. Health Behavior Health Education.	2005 - 2006
Executive Committee, School of Public Health	2004 - 2007
Search Committee, Chair, Dept. Environmental Health Sciences.	2004 - 2006
Steering Committee, Public Health Informatics Services & Access	2002 - 2004
Search Committee, Internat. Repro. Health, Dept. Health Beh. Health Educ.	2002
Search Committee, International Health Epidemiologist, Dept. of Epidemiology	2002
Search Committee, Population Geneticist, Department of Biology	2001
Associate Chair for Research and Facilities, Department of Biology/EEB	2000 - 2002
Search Committee, Molecular Epidemiologist, Department of Epidemiology	2000
Admissions and Student Affairs Committee, Department of Epidemiology	1998 - present

# **Editorial Review** (partial list):

Agriculture and Human Values	American Journal of Epidemiology
American Journal of Public Health	American Journal of Tropical Med. & Hyg.
Bioscience	Climatic Change
Ecology	Emerging Infectious Diseases
Environmental Health Perspectives	Epidemiological Reviews
Frontiers in Ecology and Environment	Interdisciplinary Perspectives Infect. Dis.
International Journal of Epidemiology	Journal Âmer. Mosquito Control Assoc.
Journal of Entomological Science	Journal of Medical Entomology
Journal of Parasitology	Journal of Vector Ecology
Journal of Wildlife Diseases	Lancet
Malaria Journal	Nature Microbiology Reviews
Proc. Nat. Academy Science	Review of Entomology
Science	Thorax
Trends in Parasitology	Vaccine
Vector-borne and Zoonotic Diseases	

Associate Editor, Environmental Health Perspectives	2010 - present
Reviews Editor, Acta Tropica	2009 - present
Associate Editor, Interdisciplinary Perspectives on Infectious Disease	2009 - present
Editorial Board, Epidemiology Research International	2009 - present
Editorial Board/Associate Editor, Frontiers in Ecology and the Environment	2002 - 2006
Assistant Editor, Journal of Entomological Science	1996 - 1999

## **Courses** Taught

Epidemiology of Infectious Diseases in the Third World (Yale University, Dept. of Epidemiology)

Seminar in Emerging Infectious Diseases (Yale University, Dept. of Epidemiology)

Biology of Arthropods of Medical Importance (Yale University, Dept. of Epidemiology)

Epidemiology of Arboviral & Zoonotic Diseases, (Yale University, Dept. of Epidemiology)

Observing the Earth from Space (Yale University, Dept. of Geology and Geophysics)

Population, Resources and Environment (Yale University, Forestry & Environmental Studies)

Infectious Disease Epidemiology (University of Michigan, Dept. of Epidemiology)

Spatial Analysis of Disease Pattern and Process (University of Michigan, Dept. of Epidemiology)

Biology and Human Affairs (University of Michigan, Dept. of Biology)

Population Dynamics and Ecology (University of Michigan, Dept. of Biology)

Global Change (University of Michigan, Interdepartmental Course)

Globalization and Health (University of Michigan, Dept. of Epidemiology)

Foundations of Population Health (University of Michigan, Dept. of Epidemiology)

Nutrition and Infectious Diseases (University of Michigan, Dept. of Epidemiology)

# **Invited Lectures and Conference Presentations**

More than 250 since 1985. Too numerous to detail.

# **Graduate Student Training**

#### **Masters Students**

Name	Degree Program	Year	Role
Rebecca Coughlin	Epidemiology - U of M	2009-2010	thesis mentor
Robin Oneill	Epidemiology - U of M	2009-2010	thesis mentor
Nyia Noel	Epidemiology - U of M	2009-2010	thesis mentor
Melissa Redwood	Epidemiology - U of M	2009-2010	thesis mentor
Catherine Foley	Epidemiology - U of M	2008-2009	thesis mentor
Andre Markon	Epidemiology - U of M	2008-2009	thesis mentor
Shivani Patel	Epidemiology - U of M	2008-2009	thesis mentor
Lisa Calhoun	Epidemiology - U of M	2007-2008	thesis mentor
Stacey Fedewa	Epidemiology - U of M	2007-2008	thesis mentor
Lisa Peters	Epidemiology - U of M	2007-2008	thesis mentor
Peter Rockers	Epidemiology - U of M	2007-2008	thesis mentor
Allison Stewart	Epidemiology - U of M	2007-2008	thesis mentor
Rashmi Dayalu	Epidemiology - U of M	2006-2007	thesis mentor
Amanda Simanek	Epidemiology - U of M	2006-2007	thesis mentor
Christiana Shoushtari	Epidemiology - U of M	2006-2007	thesis mentor
Olivia Byron-Cooper	Epidemiology - U of M	2005-2006	thesis mentor
Steve Cali	Epidemiology - U of M	2005-2006	thesis mentor
Kevin Coles	Epidemiology - U of M	2005-2006	thesis mentor
Laurie Dixon	Epidemiology - U of M	2005-2006	thesis mentor
Janine Douglass	Epidemiology - U of M	2005-2006	thesis mentor
Daniel Hogan	Epidemiology - U of M	2005-2006	thesis mentor
Christopher LaFond	Epidemiology - U of M	2005-2006	thesis mentor
Vidya Mehedevan	Epidemiology - U of M	2005-2006	thesis mentor

Jagila Minso	Epidemiology - U of M	2005-2006	thesis mentor
Ly Nguyen	Epidemiology - U of M	2005-2006	thesis mentor
Ashley Barrat	Epidemiology - U of M	2004-2005	thesis mentor
Marga Eichleay	Epidemiology - U of M	2004-2005	thesis mentor
Lia Florey	Epidemiology - U of M	2004-2005	thesis mentor
Mbabazi Karisa	Epidemiology - U of M	2004-2005	thesis mentor
Kristin Kimmel Dunlap	Epidemiology - U of M	2004-2005	thesis mentor
Elizabeth Lehman	Epidemiology - U of M	2004-2005	thesis mentor
Almas Merchant	Epidemiology - U of M	2004-2005	thesis mentor
Bee-Ya Na	Epidemiology - U of M	2004-2005	thesis mentor
Marta Prescott	Epidemiology - U of M	2004-2005	thesis mentor
Peter Boldenow	Epidemiology - U of M	2003-2004	thesis mentor
Celestine Buyu	Epidemiology - U of M	2003-2004	thesis mentor
Justin Cohen	Epidemiology - U of M	2003-2004	thesis mentor
Gal Frenkel	Epidemiology - U of M	2003-2004	thesis mentor
Wade Ivy	Epidemiology - U of M	2003-2004	thesis mentor
Janet Jackson	Epidemiology - U of M	2002-2003	thesis mentor
Christine Yuan	Epidemiology - U of M	2002-2003	thesis mentor
Kyle Enger	Epidemiology - U of M	2001-2002	thesis mentor
Sharon Greene	Epidemiology - U of M	2001-2002	thesis mentor
Alexis Handle	Epidemiology - U of M	2001-2002	thesis mentor
Jessica MacNeil	Epidemiology - U of M	2001-2002	thesis mentor
Adam MacNeil	Epidemiology - U of M	2001-2002	thesis co-mentor
Tiffany Schock	Epidemiology - U of M	2001-2002	thesis mentor
Kacey Ernst	Epidemiology - U of M	2000-2001	thesis mentor
Liz Peterson	Epidemiology - U of M	2000-2001	thesis mentor
David Plate	Epidemiology - U of M	2000-2001	thesis mentor
Jennifer Schneider	Epidemiology - U of M	2000-2001	thesis mentor
Praveen Kache	Epidemiology - U of M	2000-2001	second reader
Kawai Oneda	Epidemiology - U of M	2000-2001	second reader
Jaymie Meliker	Environ. Health Sci U of M	2000-2001	second reader
Jalaa Abdelwahab	Epidemiology - U of M	1999-2000	thesis mentor
Robyn Anderson	Epidemiology - U of M	1999-2000	thesis mentor
Barbara Brynan	Epidemiology - U of M	1999-2000	thesis mentor
Kristin Dunkle	Epidemiology - U of M	1999-2000	thesis mentor
Don Mathanga	Epidemiology - U of M	1999-2000	thesis mentor
Julie McCallum	Epidemiology - U of M	1999-2000	thesis mentor
Stephanie Arnold	Epidemiology - U of M	1998-1999	thesis mentor
Emily Edwards	Environ. Health - U of M	1998-1999	thesis mentor
Jose Siri	Epidemiology - U of M	1998-1999	thesis mentor
Devin O'Neill	Epidemiology - U of M	1998-1999	thesis mentor
Michael Reiskind	Epidemiology - U of M	1998-1999	thesis mentor
Vidya Kumar	Epidemiology - U of M	1998-1999	second reader
Peggy Millett	Epidemiology - U of M	1997-1998	thesis mentor
Georges Ki-zerbo	Epidemiology - U of M	1997-1998	thesis mentor
Jeny Wegbright	Epidemiology - U of M	1997-1998	thesis mentor
Aravinda DeSilva	Epidemiology - Yale	1995-1996	thesis mentor
Richard Eno	Epidemiology - Yale	1995-1996	thesis mentor
Kathy Baisley	Epidemiology - Yale	1995-1996	thesis mentor
Pia MacDonald	Epidemiology - Yale	1995-1996	thesis mentor
Binod Mahanty	Epidemiology - Yale	1995-1996	thesis mentor
John Menone	Epidemiology - Yale	1995-1996	thesis mentor

Andre Sofair	Epidemiology - Yale	1995-1996	thesis mentor
Pravina Venkatesh	Epidemiology - Yale	1995-1996	thesis mentor
Phillip Bretsky	Epidemiology - Yale	1994-1995	thesis mentor
Leena Mangrulkar	Epidemiology - Yale	1994-1995	thesis mentor
Brian Spencer	Epidemiology - Yale	1994-1995	thesis mentor
Kimberly Goodnow	Epidemiology - Yale	1993-1994	thesis mentor
Kamala Mallik	Epidemiology - Yale	1993-1994	thesis mentor
Cherise Rohr	Epidemiology - Yale	1993-1994	thesis mentor

# **Doctoral Student Dissertations**

Name	Degree Program	Year	Role
Peter Larson	Epidemiology – U of M	2009-	Chair
Andre Markon	Epidemiology – U of M	2009-	Chair
Darlene Bhavnani	Epidemiology – U of M	2008-	Member
Jennifer Knapp	Epidemiology – U of M	2008-	Co-Chair
Robin Nelson	Anthropology – U of M	2008-2008	Member
Sheng Li	Epidemiology – U of M	2006-	Member
Lia Florey	Epidemiology – U of M	2005-2009	Chair
Subhojit Dey	Epidemiology – U of M	2005-2009	Member
Courtney Murdoch	Natural Res. & Environ. – U of M	2005-2009	Member
Elizabeth Lehman	Epidemiology – U of M	2005-2008	Chair
Luis Chaves	Ecology and Evol. Biology–U of M	2005-2008	Co-Chair
Sarah Cobey	Ecology and Evol. Biology–U of M	2005-2009	Member
Peter Boldenow	Epidemiology – U of M	2004-	Chair
Justin Cohen	Epidemiology – U of M	2004-2007	Chair
Kim Jong-Hoon	Epidemiology – U of M	2004-2009	Member
Susan Tanner	Anthropology – U of M	2004-2005	Member
Ting-Wu Chuang	Epidemiology – U of M	2004-2008	Chair
Melissa Slotnick	Environmental Health Sci.– U of M	2004-2007	Member
Dawn Sievert	Epidemiology – U of M	2003-2008	Co-Chair
Sharon Greene	Epidemiology – U of M	2003-2005	Chair
Loulou Kobeisi	Epidemiology – U of M	2003-2006	Co-Chair
Melissa VanDyke	Epidemiology – U of M	2003-2006	Co-Chair
Katia Koelle	Ecology and Evol. Biology–U of M	2003-2005	Member
Kacey Ernst	Epidemiology – U of M	2002-2006	Chair
Jeanette Rainey	Epidemiology – U of M	2002-2005	Co-Chair
Mary Johnson	Environmental Health Sci U of M	2002-2005	Member
Jennifer Schneider	Biological Sciences – Notre Dame	2002-2006	Member
Sharon Zenk	Health Behavior/Educ. – U of M	2002-2004	Member
Jaymie Meliker	Environ. Health. Sci. – U of M	2002-2006	Member
Katherine Jacobson	Epidemiology – U of M	2002-2004	Member
Michael Reiskind	Ecol. & Evol U of M	2001-2005	Chair
Jose Siri	Epidemiology - U of M	2001-2006	Chair
Haicheng Tang	Biostatistics - U of M	2001-	Member
Joshua Rest	Ecol. & Evol. Biol U of M	2001-2004	Member
Don Mathanga	Epidemiology - U of M	2000-2004	Co-Chair
Tsung-Wen Kuo	Epidemiology - U of M	2000-2005	Member
Christopher Riolo	Epidemiology – U of M	1998-2005	Member
Victor Mwapasa	Epidemiology – U of M	2002-2003	Member
Kristin Dunkle	Epidemiology – U of M	2002-2003	Member

Teresa Friedrich	Ecol. & Evol. Biology – U of M	1999-2003	Co-Chair
Salma Haidar	Epidemiology - U of M	1998-2002	Chair
Kimberly Read	Nat. Res. Environ U of M	1997-2002	Member
Michael Peng	Epidemiology - U of M	1997-2001	Co-Chair
Gavin Welch	Epidemiology - U of M	1997-2001	Member
Pia MacDonald	Epidemiology - U of M	1997-2000	Chair
Kim Lindblade	Epidemiology - U of M	1997-2000	Chair
Derek Dimchef	Biology - U of M	1997-2000	Member
Jennifer St. Sauver	Epidemiology - U of M	1997-1999	Member
Kathleen Berger	Nat. Res. Environ U of M	1994-1997	Member
Robert Fraser	Environ. Studies – Yale	1995-1998	Member
Lisa Lipschitz	Medicine – Yale	1995-1998	Chair
Franka DesVignes	Epidemiology – Yale	1994-1998	Member
Diane Aye	Epidemiology – Yale	1994-1997	Member
Linda Brown	Epidemiology – Yale	1994-1997	Member
Dana Loo	Medicine – Yale	1995-1997	Chair
Sara Cody	Medicine – Yale	1991-1993	Chair

#### **Post-Doctoral Students**

Name	Program	Year
Kyung-mee Choi	Epidemiology/Spatial Analysis	2001-2003
Hala Kassem	Vector Ecology	2000-2001
Wen Li	Epidemiology/GIS	1999-2000
Andrew Long	Spatial Analysis	1998-2000
Leah Estbergh	Spatial Analysis/Programming	1998-2000
Allison Aiello	Social Epidemiology	2003-2005

# Research and Training Grants

# Active Grants as Principal Investigator, Co-Director or Co-Investigator Determinants of Malaria Disease in Malawi

Sub-contract from Michigan State University on urban malaria risks and prevention 8/01/10 - 7/31/17 NIH (NIAID) \$9,128,782 (Total direct costs only)

#### Urbanization and Environmental Impacts on Malaria in Malawi

African Studies Center pilot grant for developing analyses of malaria KAP and access to treatment 4/05/10 - 4/4/11 Univ. of Michigan \$7,500

#### **Cancer Epidemiology Education in Special Populations**

Predoctoral training of epidemiologists in skills, knowledge, experience of cancer 9/01/06 - 7/31/11 NIH (NCI) \$1,215,247 (Total direct and indirect)

#### Robert Wood Johnson Foundation Health and Society Scholars Program

Post-doctoral training in social epidemiology and social determinants of disease risks 9/01/10 - 8/31/12 RWJ Foundation \$1,519,648 (Direct costs only)

#### Social Epidemiology of Infectious Diseases: Developing Theory and Testing Relevance

Analyses of patterns and problems in understanding social determinants of infectious disease risk 5/01/09 - 8/31/10 RWJ HSSP (U of M) \$24,107 (Total direct; no indirect)

#### **Determinants of Malaria Disease in Malawi**

Consortium sub-contract on environmental determinants of urban malaria risks and prevention 7/01/10 - 6/30/17 NIH (1U19AI089683) \$522,966 (UM sub) \$9,128,782 (total)

#### Recent Grants Completed as Principal Investigator or Co-Investigator

#### Robert Wood Johnson Foundation Health and Society Scholars Program

Post-doctoral training in social epidemiology and social determinants of disease risks 9/01/06 - 8/31/11 RWJ Foundation \$1,179,956 (Direct costs only - current year)

#### **Prevention Research Center of Michigan**

Diverse analysis and program development to understand and reduce youth violence 9/30/04 - 9/29/09 CDC \$3,274,366 (Total direct and indirect)

#### Socio-Ecological Impacts of Schistosomiasis Risk in Kenya

Studies of social, behavioral and epidemiological patterns and determinants of disease 8/01/04 - 7/30/07 NIH (NIAID) \$153,000 (Total direct and indirect)

## Arsenic Exposure and Bladder Cancer in Michigan

Analysis of spatial and temporal pattern of arsenic in water as a risk factor for bladder cancer 7/1/02 - 6/30/07 NIH \$2.114.651

#### **Multilevel Socio-Ecology of Polyparasitism**

Multi-level analysis of malaria, schistosomiasis and hookworm in southeastern Kenya 6/1/05 - 5/31/06 RWJ HSSP (U of M) \$26,000 (Total direct; no indirect)

# Establishment of UM Program of Poyang Lake Studies in Environment, Health and Sustainable Development

6/1/05 - 12/31/05 OVPR (U of M) \$10,000 (Total direct; no indirect)

### Environmental Co-factors and Endemic Burkitt's Lymphoma, Nyanza Province, Kenya

Analysis of spatial patterns of environment and cancer incidence

1/1/04 – 9/30/04 Munn Idea (U of M) \$19,384 (Total direct; no indirect)

#### **Environmental Determinants of Highland Malaria in Kenya**

Analysis of epidemiological patterns in relation to agricultural and housing in the region 8/01/03 - 7/30/06 NIH \$153,000 (Total direct and indirect)

#### Climate Variability and Influenza: New Approaches to Public Health Early Warning

Spatial and temporal statistical analysis of influenza in France and US and meteorological time-series data to investigate whether climate can be used to predict influenza seasonal patterns.

7/1/02 - 6/30/06 NOAA \$440,637 (Total direct and indirect)

#### **Multivariate Surveillance and Detection**

Modeling and statistical analysis of ID surveillance patterns and needs for the state of Michigan 11/2/02 – 9/30/05 CDC/MDCH \$274,924 (Total direct and indirect)

#### **Health and Society Scholars Program**

Post-doctoral training in social epidemiology

09/01/02-08/31/07 RWJ Foundation \$4,633,282 (Total direct and indirect)

#### **Initiating Research in Spatial Analysis of Society-Environment Interactions**

Training and research on applications of spatial analysis and remote sensing to public health 10/1/00 - 8/31/04 OVPR (U of M) \$425,300 (Total direct; no indirect)

#### **Biospheric-Atmospheric Research and Training**

Research and training on biological impacts of atmospheric changes and global warming 1/1/99 - 12/31/04 NSF (IGERT) \$2,699,016 (Total direct and indirect)

### **Community Collaboration in Public Health Research**

PRC support for research and intervention to improve health in Flint, MI 9/30/98 - 9/29/03 CDC \$2,578,000 (Total direct and indirect)

## Training Medical School Faculty to Tackle Malaria in Malawi

Train Malawian doctoral students in research on malaria epidemiology and prevention 7/1/98 - 6/30/04 NIH/NIAID \$758,512 (Total direct and indirect)

#### **Assessing Climate Change Impacts in the Upper Great Lakes Region**

Section addresses pathways of impact by climate variability on infectious diseases of the region 2/1/99 - 1/31/02 EPA \$28,000 (Total for health sector)

### Risk Assessment of the Expanding Distribution of Lyme Disease in the North-Central U.S.

Field studies of Lyme disease ecology and epidemiology in Michigan's Upper Peninsula 5/1/01 - 4/30/02 CDC \$165,726 (UM sub-contract)

#### **Environmental Determinants of Leishmaniasis in Syria**

Analysis of landuse and landcover associations with disease incidence 9/1/99 - 3/1/00 NASA \$18,740

#### **Biostatistical Methods in Environmental Epidemiology**

Development of software and web-based course for spatial analysis of disease risk patterns 8/31/98 - 6/30/00 NIH \$159,145

#### Use of Partner Histories to Focus HIV and STD Prevention

Modeling transmission patterns to understand optimal intervention 9/30/97 - 9/29/00 CDC \$451,626

#### **Early Warning System for Dengue Fever**

Retrospective time-series analysis of dengue case data to help forecast outbreaks

7/1/97 - 12/31/98 NASA \$90,000

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# **Environmental Determinants of** *Ixodes dammini* **Expansion**

Field experimental and analytical studies of populations of the Lyme disease vector \$225,580

5/1/97 - 4/30/01 NIH

Early Warning System Concept Design: Dengue Hemorrhagic Fever

Initial analysis of dengue case data to determine feasibility of project

2/24/97 - 2/23/98 NASA \$26,666

## **Bibliography**

- 1. Wilson ML. A test and critique of hypotheses for the evolution of social behavior by natural selection. pp 303-357 IN: **Naturalistic Behavior Studies.** Department of Biology, University of Chicago. 1975.
- 2. Wilson ML, Elicker J. Establishment, maintenance, and behavior of chimpanzees on Ossabaw Island, Georgia, U.S.A. <u>Primates</u>. 1976. 17(4): 451-73.
- 3. Levins R, Wilson ML. Ecological theory and pest management. <u>Ann. Rev. Entomol.</u> 1980; 25: 287-308.
- 4. Wilson ML. A terrestrial application. pp 41-47 IN: <u>Analysing Perturbations to Marine Ecosystems</u>
  <u>Using Loop Analysis and Time Averaging.</u> P Lane and R Morrison (eds.). President and Fellows of Harvard College, Cambridge. 1981.
- 5. Wilson ML, Levine JF, Spielman A. Effect of deer reduction on the deer tick (*Ixodes dammini*). <u>Yale</u>. <u>J. Biol</u>. <u>Med</u>. 1984; 57: 697-705.
- 6. Spielman A, Levine JF, Wilson ML. Vectorial capacity of North American *Ixodes* ticks. <u>Yale</u>. <u>J</u>. <u>Biol</u>. <u>Med</u>. 1984; 57: 507-513.
- 7. Wilson ML, Adler GH, Spielman A. Correlation between abundance of deer and that of the deer tick, *Ixodes dammini* (Acari:Ixodidae). **Ann. Entomol. Soc. Am.** 1985; 78: 172-76.
- 8. Spielman A, Wilson ML, Levine J, Piesman J. Ecology of *Ixodes dammini*-borne human babesiosis and Lyme disease. **Ann. Rev. Entomol.** 1985; 30: 439-460.
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