

BIOGRAPHICAL SKETCH

NAME Matthew W. Nonnenmann		POSITION TITLE	
eRA COMMONS USER NAME (credential, e.g., agency login) mnonnenmann		Assistant Professor of Occupational Health Sciences	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
St Ambrose University, Davenport, IA	B.S.	1996	Biology
University of Iowa, Iowa City, IA	M.S.	1999	Industrial Hygiene
University of Iowa, Iowa City, IA	Ph.D.	2005	Industrial Hygiene

A. Personal Statement

The objective of the proposed research is to utilize a participatory approach to design, deliver, and evaluate the effectiveness of an educational intervention program to increase respirator use among broiler chicken growers. I have developed collaborations with stakeholders (e.g., growers, agricultural extension and integrators) in the broiler production industry and collected preliminary exposure information to add focus and direction to this educational intervention. I feel that utilizing a participatory approach will be extremely effective for identifying barriers and increasing respirator use among these growers. Also, disseminating information about inhalation hazards and correct respirator use to students in the Animal Sciences may help to change the safety culture in the industry.

I am Assistant Professor at The University of Iowa. I am a Certified Industrial Hygienist with extensive experience in field aerosol exposure assessment and exposure control in agricultural health and safety. My research focus has been on the prevention of occupational injuries and illnesses in agriculture. I have recently focused on the broiler industry and am developing novel exposure assessment methods as well as new approaches to increase use of known solutions to prevent exposure to risk factors for disease among agricultural workers. I believe that my collaborations and expertise have adequately prepared me to successfully carry out my role in the proposed project.

B. Positions and Honors

Positions and Employment

- 1997 – 1999 Graduate Research Assistant, Department of Occupational and Environmental Health, University of Iowa, Iowa City, IA
- 1999 – 2005 Research Assistant III, Department of Occupational and Environmental Health, University of Iowa, Iowa City, IA
- 2006 – 2007 Assistant Professor, Department of Occupational Safety and Health, Southeastern Oklahoma State University, Durant, OK
- 2007 – Assistant Professor, Department of Occupational Health Sciences, University of Texas Health Science Center at Tyler, Tyler, TX
- 2007 – Adjunct Assistant Department of Environmental Sciences, Stephen F Austin University, Nacogdoches, TX

2009 – Adjunct Assistant Professor, University of Texas School of Public Health - San Antonio Regional Campus, San Antonio, TX

Other Experience and Professional Memberships

1999 – Member, American Industrial Hygiene Association
2002 – Member, American Board of Industrial Hygiene, Certified Associate Industrial Hygienist (#21)
2008 – Member, American Society of Safety Engineers
2008 – Member, American Board of Industrial Hygiene, Certified Industrial Hygienist Comprehensive Practice (#9435)

Honors

1998 – 1999 NIOSH Traineeship
2003 – 2004 NIOSH Traineeship
2005 Iowa Governor's Safety Council – Jack Beno Award for Academic Excellence
2009 University of Texas Health Science Center at Tyler – Occupational Medicine Residency Program – Teacher of the Year

C. Selected Peer-reviewed Publications

1. Nonnenmann MW, Hussain A, Shirley M, Shepherd S, Gilmore K, Levin JL. Risk factors for musculoskeletal symptoms among crawfish farmers in Louisiana--a pilot study. *J Agromedicine*. 2010;15(4):386-93.
2. Nonnenmann MW, Bextine B, Dowd SE, Gilmore K, Levin JL. Culture-independent characterization of bacteria and fungi in a poultry bioaerosol using pyrosequencing: a new approach. *J Occup Environ Hyg*. 2010;7(12):693-9.
3. Nonnenmann MW, Anton DC, Gerr F, Yack HJ. Dairy Farm Worker Exposure to Awkward Knee Posture During Milking and Feeding Tasks. *Journal of Occupational and Environmental Hygiene*. 2010;7(8):483-9.
4. Levin JL, Gilmore K, Shepherd S, Wickman A, Carruth A, Nalbone JT, et al. Factors influencing safety among a group of commercial fishermen along the Texas Gulf Coast. *J Agromedicine*. 2010;15(4):363-74.
5. Levin JL, Gilmore K, Carruth A, Nonnenmann MW, Evert W, King D. An interview with Vietnamese fishermen of Louisiana in the wake of the oil spill. *J Agromedicine*. 2010;15(4):337-42.
6. Reynolds SJ, Nakatsu J, Tillery M, Keefe T, Mehaffy J, Thorne PS, et al. Field and wind tunnel comparison of four aerosol samplers using agricultural dusts. *Ann Occup Hyg*. 2009;53(6):585-94. PMID: 2723214.
7. Levin JL, Doyle EI, Gilmore KH, Wickman AJ, Nonnenmann MW, Huff SD. Cultural effectiveness in research: a summary report of a panel session entitled "Engaging Populations at Risk". *J Agromedicine*. 2009;14(4):390-9.
8. Douphrate DI, Nonnenmann MW, Rosecrance JC. Ergonomics in industrialized dairy operations. *J Agromedicine*. 2009;14(4):406-12.
9. Nonnenmann MW, Anton D, Gerr F, Merlino L, Donham K. Musculoskeletal symptoms of the neck and upper extremities among Iowa dairy farmers. *Am J Ind Med*. 2008;51(6):443-51.
10. Nonnenmann MW, Donham KJ, Rautiainen RH, O'Shaughnessy PT, Burmeister LF, Reynolds SJ. Vegetable oil sprinkling as a dust reduction method in swine confinement. *J Agric Saf Health*. 2004;10(1):7-15.

11. Pedersen S, Nonnenmann M, Rautiainen R, Demmers TG, Banhazi T, Lyngbye M. Dust in pig buildings. J Agric Saf Health. 2000;6(4):261-74.
12. Trapp JF, Watt JL, Frees KL, Quinn TJ, Nonnenmann MW, Schwartz DA. The effect of of glucocorticoids on grain dust-induced airway disease. Chest. 1998;113(2):505-13.

D. Research Support

Ongoing Research Support

1K01OH009674-01A1 Nonnenmann (PI) 08/1/10-7/31/13
NIOSH/CDC: Measures of Dust, Endotoxin, and Exhaled Nitric Oxide among Dairy Farm Workers
(Awarded)
Role: PI

National Children's Study Nonnenmann (PI) 10/1/10-9/30/13
Formative Research: House Dust Analysis for Mold (NICHD)
(Submitted)
Role: PI

U07/CCU706145 09/30/06-9/29/11 Levin (PI) 09/30/05 – 09/30/11
CDC/NIOSH: Southwest Center for Agricultural Health, Education and Injury Prevention
Role: Deputy Director – October, 2008

U07/CCU706145 Levin (PI) 09/31/06 - 09/29/11
CDC/NIOSH: Southwest Center for Agricultural Health, Education and Injury Prevention
Pilot Research Project: Poultry Aerosol
Role: PI

Completed Research Support

T42/OH0008421 07/1/06-6/30/10 Felknor (PI) 07/01/08 – 09/30/09
CDC/NIOSH: Southwest Center for Occupational Health and Safety
Pilot Research Project: Upper Extremity Exposure to Awkward Posture and Force During Crawfish
Harvesting
Role: PI

1 T42OH009229-01 03/01/09 - 02/28/10
CDC/NIOSH Mountain and Plains Education Research Center
Pilot Research Grant: Assessment of Muscular Exposure to the Upper Extremity Among Dairy Parlor
Workers
Role: Consultant

2 U50-OH008085-04A1 05/01/09 - 09/14/10
CDC/NIOSH/HICAHS - Feasibility Project
Direct Measurement of Physical Risk Factors of Awkward Posture and Repetition Involving Large
Herd Dairy Parlor Workers.

Program Director/Principal Investigator (Last, First, Middle): Nonnenmann, Matthew, W

Role: Co-PI

U07/CCU706145 Levin (PI) 09/31/06 - 09/29/11
CDC/NIOSH: Southwest Center for Agricultural Health, Education and Injury Prevention
Pilot Research Project: Risk Factors for Musculoskeletal Symptoms among Louisiana Crawfisherman
Role: PI

U07/CCU706145 Boggaram (PI) 09/31/06 - 09/29/11
CDC/NIOSH: Southwest Center for Agricultural Health, Education and Injury Prevention
Pilot Research Project: Investigation of the effects of poultry dust extract on inflammatory responses
in lung epithelial cells and monocytic cells.
Role: Co-PI