# Luke Peter Naeher, Ph.D., M.S.

## PERSONAL INFORMATION

	I EKSU		
Full name/mailin	g address: Luke Peter 1071 Scott 7 Athens, GA		
Day phone numb Evening phone n E-mail Address:	umber: 706-227-385	706-542-2454 706-227-3854 LNaeher@arches.uga.edu	
		EDUCATION	
8/94-8/98	Yale University, Graduate School of Arts and Sciences       New Haven, CT         Department of Epidemiology and Public Health, Division of Environmental Health Sciences       Major:         Major:       Epidemiology and Public Health// Environmental Health Sciences         Degree:       Ph.D., October, 1998         Dissertation:       Variations in Daily Peak Expiratory Flow in Women and Ambient PM <sub>2.5</sub>		
9/92-6/94	Harvard University, School of Public Health Boston, MA Department of Environmental Health, Division of Environmental Science and Engineering Major: Environmental Health Sciences, Industrial Hygiene Degree: M.S., June 1994		
<ul> <li>9/90-8/92, 12/98 State University of New York at Stony Brook, Marine Sciences Research Center Major: Marine Environmental Sciences Degree: M.S., December 1998</li> <li>Thesis: The Role Of Natural Sediment Concentration In An Aqueous En Coefficient Of Hexachlorobenzene (HCB): A Headspace Partitioning Methods.</li> </ul>		ē	
1/87-1/89	Cornell University, College of Agricul Major: Biology Degree: B.S., January 1989	lture and Life Sciences	Ithaca, NY
	WO	RK EXPERIENCE	
7/01-present	<b>THE UNIVERSITY OF GEORGIA</b> Department of Environmental Health Science Title: Assistant Professor (50% Teaching: 50% Research)		Athens, GA
	<ul> <li>Teach EHSC 4080/6080: Environm</li> <li>Teach EHSC 4800/6800: Environm</li> <li>Developing a 7000 level MPH cord</li> <li>Research</li> <li>In collaboration with Peru-based cortraffic-generated air pollution in Tr</li> <li>In collaboration with UGA and US and health related to prescribed fire</li> <li>In collaboration with Emory University ambient particle exposures and ozd</li> <li>Through a 20% Inter-Professional         <ul> <li>Investigating (lead in organophosphate pestichildren from Jackson</li> <li>Investigating (lead in lindane and permethr</li> </ul> </li> </ul>	Environmental Health (undergraduate only) nental Air Quality (undergraduate and graduate nental Epidemiology (undergraduate and graduate e course in Environmental Health for Fall 2002 obleagues, investigating the respiratory impact of ujillo, Peru (UGA and in-kind funding). DA colleagues, investigating smoke exposures es in Georgian forests (USDA and Georgia Sou ersity and Georgia Tech colleagues, investigating one and pediatric asthma (currently seeking fun Agreement (IPA) with CDC, National Center for vestigator) – in collaboration with U.S. EPA and the exposure levels (using biological and environment) nville, FL. vestigator) – in collaboration with Dawson and in urinary metabolites in children being treated cting the rapid needs assessment survey, "Mon	(graduate only) of occupational exposures to (personal and community) othern Company funding). Ing the relationship between ding through NIH). For Environmental Health: and State colleagues – vironmental samples) in

#### 9/98-6/01 **CENTERS FOR DISEASE CONTROL AND PREVENTION**

National Center for Environmental Health, Health Studies Branch Title: Environmental Epidemiologist

• Investigated (lead investigator) - in collaboration with U.S. EPA and State colleagues - organophosphate pesticide exposure levels (using biological and environmental samples) in children from Jacksonville, FL.

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- Investigated (lead investigator), through a proposed case-control study and follow-up surveillance program-in • collaboration with U.S. EPA, U.S. AID, and Ukrainian colleagues-cause of an outbreak of a mysterious illness (378 cases, 208 children) that Ukranian authorities have blamed on emissions from the burning of military grade cables or leaks of Soviet-era rocket fuel in five southern Ukrainian villages in Pervomaisk.
- Investigated (lead investigator)—in collaboration with public health officials from Peru and USAID—the primary source(s) of pediatric lead poisonings observed in El Callao, Peru, using an isotope ratio methodology in which isotopic profiles of lead in blood, mineral, air, and gasoline samples will be compared.
- Investigated (co-investigator)-in collaboration with U.S. EPA, Indian Health Service, and State and university colleagues in Alaska-potential adverse health effects associated with subsistence diet-associated levels of persistent pollutants (e.g., PCBs, DDT, Hg) in maternal and cord blood of Alaska Native mothers and infants.

#### 1/95-8/98 YALE SCHOOL OF MEDICINE

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Department of Epidemiology and Public Health Title: Doctoral Research Fellow

- My dissertation was a component of a larger NIEHS-funded study led by Dr. Brian Leaderer. For the part of the overall study that was my dissertation, I:
  - Led a research team from Yale, Harvard and the Virginia Dept. of Environmental Quality studying the adverse respiratory health effects associated with ambient levels of particle matter and acid aerosols.
  - Formulated hypotheses, designed study, collected, analyzed and modeled data, and presented findings at • national conferences and in peer-reviewed literature.

#### 9/93-1/96 WORLD HEALTH ORGANIZATION (WHO)

Division of Diarroeal and Acute Respiratory Disease Control

Title: Project Consultant (under the direction of Dr. Brian Leaderer (Yale) and Dr. Kirk Smith (UC Berkeley))

- Worked jointly with a multi-national, multi-disciplinary team in Guatemala studying the effect that cooking • stove interventions had on the indoor air quality of indigenous homes.
- Collected, analyzed and modeled data, published results, and presented findings to colleagues at Harvard, Yale, national and international conferences, and WHO representatives.
- Results of study contributed to a currently funded study (NIEHS, PI Dr. Kirk Smith) based in the highlands of • Guatemala aimed at: i) studying the effect that cooking stove interventions has on the indoor air quality of indigenous homes and, ii) improving the respiratory health of resident infants and women.

### summer 1993 EXXON COMPANY U.S.A.

*Health Services Department* Title: Industrial Hygiene Intern

- Assigned to Industrial Hygiene Emergency Response Team following a fatal fire at a refinery; educated rescue • and cleanup workers regarding exposure to and protection from accident site hazards.
- Investigated worker exposures to noise, heat, hydrocarbons, heavy metals, and multiple company products at Exxon facilities in Texas, Louisiana and Illinois.
- Formulated hypotheses-for occupational safety and health issues-designed studies, collected and analyzed data, and presented results to Exxon Management and colleagues at Harvard and Yale.

#### 1/91-8/92 STATE UNIVERSITY OF NEW YORK AT STONY BROOK

Pre-Doctoral Research Assistant, Marine Sciences Research Center (MSRC) Title: Pre-Doctoral Research Assistant

- Thesis research objective was to identify the role that natural sediment concentration in an aqueous • environment plays on the partitioning of HCB between the adsorbed, dissolved and vapor phase; used a headspace partitioning model, measured the adsorbed, dissolved, and vapor phase concentrations of HCB
- Collected, analyzed and synthesized existing data on chemical contamination in the Long Island Sound in cooperation with MSRC faculty; prepared summary report and historical database for U.S. EPA.
- Prepared summary reports of meetings of the Toxics Work Group module of U.S. EPA's NY/NJ Harbor Program; reports used for U.S. EPA's NY/NJ Harbor Comprehensive Cleanup and Management Plan.

Xela. Guatemala

New Haven, CT

Houston, TX

Stony Brook, NY

## ADDITIONAL

### **PROFESSIONAL SOCIETIES**

Member, American Thoracic Society (ATS) Member, International Society of Exposure Analysis (ISEA) Member, International Society of Environmental Epidemiology (ISEE) Member, American Industrial Hygiene Association (AIHA) Member, American Scientific Affiliation (ASA) Member, the University of Georgia, Biomedical and Health Sciences Institute (BHSI) Faculty, the University of Georgia, Interdisciplinary Toxicology Program (ITP) Member, Georgia Environmental Health Association (GEHA)

### PROFESSIONAL WORKING GROUP/COMMITTEE PARTICIPATION

Member, National Children's Study, Workgroup on Exposure to Chemical Agents (9/01-present) Member, AIHA, Occupation Epidemiology and Exposure Assessment Strategies Committees (9/01-present) Member, Centers for Disease Control and Prevention, Institutional Review Board "A" (1/00-present) Member, American Thoracic Society, Assembly on Environmental and Occupational Health, Program Committee (5/00-present) Member, Advisory Group for the American Thoracic Society's World Lung Health Committee (7/00-present) Reviewer, EPA, external peer review of the study design for the planned NERL/HEASD longitudinal field study to estimate young children's exposure to pesticides in the home (8/02)

Member, International Society for Exposure Analysis 2001 International Conference Organizing Committee (1/01-11/01) Reviewer, CDC, NCEH, Air Pollution and Respiratory Health Branch – CDC National Asthma Program Grants Review (9/01) Technical Advisor/Resource Group (TARG), Idaho Superfund-Related Environmental Health Education Project (9/99-6/01) Contributor, *WHO Work Group on Childhood Pneumonia and Air Pollution in Third World* (9/93-2/96) Co-Coordinator, Conference on *Environmental Health in Latin America*--Yale University (12/94-4/95)

## **OTHER QUALIFICATIONS**

## HONORS AND SCHOLARSHIPS

- 2002 **Department of Health and Human Services, Secretary's Award for Distinguished Service**: as a member of the Lower Manhattan Community Assessment Team recognition for rapid assessment of the critical needs and health effects in communities surrounding the World Trade Center after the attacks of September 11, 2001
- 2002 **Centers for Disease Control and Prevention, Honor Award**: as a member of the Lower Manhattan Community Assessment Team – recognition for rapid assessment of the critical needs and health effects in communities surrounding the World Trade Center after the attacks of September 11, 2001
- 2002 American Red Cross, Certificate of Appreciation: for volunteering at American Red Cross Respite Centers setup in lower Manhattan at Ground Zero to help emergency workers stationed at the World Trade Center after the attacks of September 11, 2001
- 1999 Nominated for American Thoracic Society, Environmental and Occupational Health Assembly, David Bates Award
- 1998 Recipient of American Schools of Public Health/CDC, National Center for Environmental Health Fellowship
- 1994-98 Recipient of Yale University Doctoral Fellowship
- 1992-94 Recipient of National Institute for Occupational Safety and Health Training Grant
- 1984-89 Recipient of New York State Regents Scholarship
- 1986 The King's College Biological Sciences Scholarship
- 1986 Who's Who Among American College Students
- 1984 Reipient of Dorothy Wilson Memorial Scholarship

## **RESEARCH SKILLS**

- PC skills: SAS, MS Word, Excel, Access
- Gas Chromatography
- Atomic Absorption
- Gravimetric Analysis (analysis of particulate matter and sea water filtrate)
- Active and passive air monitoring for a range of environmental contaminants, including:
  - total suspended particulate matter, PM<sub>2.5</sub>, PM<sub>10</sub>, ozone, carbon monoxide, nitrous oxides, sulfur oxides, lead, chromium, asbestos, and hydrocarbons

### **PUBLICATIONS AND REPORTS**

Neufeld LM, Haas JD, Ruel MT, Grajeda R, **Naeher LP**. The use of indoor open fires for cooking is associated with hemoglobin concentration in iron deficient women from the rural highlands of Guatemala. (Submitted to *Pam American Journal of Public Health*).

**Nacher LP**, Rubin C, Hernandez M, Noonan G, Miller D, Paschal D, Jarrett J, DIGESA of Peru colleagues. 2003. The use of isotope ratios to identify lead sources contributing to lead poisonings in Callao Constitutional Province, Peru. (in press *Archives of Environmental Health*).

Kieszak S, Nacher LP, Rubin C, Needham LL, Backer L, Barr D, McGeehin M. 2002. Investigation of the relation between selfreported food consumption and household chemical exposures with urinary levels of selected nonpersistent pesticides. *Journal of Exposure Analysis and Environmental Epidemiology*. 12(6):404-408.

Shendell DG, Naeher LP. 2002. A pilot study to assess ground-level ambient air concentrations of fine particles and carbon monoxide in urban Guatemala. *Environmental International*. 28(5):375-382.

Backer L, Niskar AS, Rubin C, Blindauer K, Christianson D, Naeher L, Rogers HS. 2001. Environmental public health surveillance: Possible estuary-associated syndrome. *Environmental Health Perspectives*. 109:797-801 (Suppl. 5).

Rubin C, McGeehin M, Holmes AK, Backer L, Burreson G, Earley MC, Griffith D, Levine R, Litaker W, Mei J, Naeher L, Needham L, Noga E, Poli M, Rogers HS. 2001. Emerging areas of research reported during the CDC National Conference on Pfiesteria: From biology to public health. 109:633-637 (Suppl. 5).

Nacher LP, Smith KR, Leaderer BP, Neufeld L, Mage D. 2001. Carbon monoxide as a tracer for assessing exposures to particulate matter in wood and gas cookstove households of highland Guatemala. *Environmental Science & Technology*. 35:575-581.

**Nacher LP**, Smith KR, Leaderer BP, Mage D, Grajeda R. 2000. Indoor and outdoor PM<sub>2.5</sub> and CO in high and low density Guatemalan villages. *Journal of Exposure Analysis and Environmental Epidemiology*. 10:544-551.

Nacher LP, Leaderer BP, Smith KR. 2000. Particulate matter and carbon monoxide in highland Guatemala: indoor and outdoor levels from traditional and improved wood stoves and gas stoves. *Indoor Air*. 10:200-205.

**Nacher LP**, Holford TR, Beckett WS, Belanger K, Triche EW, Bracken MB, Leaderer BP. 1999. Healthy women's PEF variations with ambient summer concentrations of  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_4^{=}$ ,  $H^+$ , and  $O_3$ . *American Journal of Respiratory and Critical Care Medicine*. 160:117-125.

Leaderer BP, **Nacher LP**, Jankun T, Belanger K, Holford T, Toth C, Sullivan J, Koutrakis P. 1999. Indoor, outdoor and regional summer and winter concentrations of  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_4^{=}$ ,  $H^+$ ,  $NH_4^+$ ,  $NO_3^-$ , and HONO in homes with and without kerosene space heaters. *Environmental Health Perspectives*. 107:222-223.

Meyer P, Mannino D, Homa D, Naeher L, Redd S. 1999. Air pollution and your health: reducing health risks. *Forum for Applied Research and Public Policy*. 14(4):43-49.

MMWR, May 14, 1999 / 48(18);381. Notice to Readers Possible Estuary-Associated Syndrome. Reported by: AL Hathcock, PhD, Delaware Dept of Health and Social Svcs. B Hughes, PhD, Florida Dept of Health. D Matuszak, MD, Maryland Dept of Health and Mental Hygiene. JS Cline, DDS, North Carolina Dept of Health and Human Svcs. R Ball, MD, South Carolina Dept of Health and Environmental Control. S Jenkins, VMD, Virginia Dept of Health. **Health Studies Br** and Surveillance Br, Div of Environmental **Hazards and Health Effects**, Div of Environmental Health and Laboratory Sciences, **National Center for Environmental Health**, **CDC**.

Nacher LP. Latex sensitivity in the health care profession. *Report submitted to Health Risk Consultants, Inc.* Project Name: Latex Hypersensitivity, Project Reference No.: HRC-P157-100, January 19, 1997.

**Nacher LP**, Leaderer BP, Smith KR, Grajeda R, Neufield L, Mage D, and Boleij JSM. Indoor, outdoor, and personal carbon monoxide and particulate levels in Quetzaltenango, Guatemala: characterizations of traditional, improved, and gas stoves in three test homes. *Report submitted to the WHO, Division of Diarroeal and Acute Respiratory Disease Control, Program for the Control of Acute Respiratory Infections*. February 1996.

Brownawell B, Fisher N, and Naeher LP. Characterization of data on toxic chemical contamination in Long Island Sound. *Report submitted to the United States Environmental Protection Agency Long Island Sound Study*. January 31, 1991.

### PRESENTATIONS AT CONFERENCES AND MEETINGS

**Nacher LP**, Aguilar MV, Miller T. *International Society of Exposure Analysis 2003 International Conference, Stresa, Italy.* Poster/Oral Presentation: Blood lead survey of children, pregnant women, office workers, and workers exposed to traffic-generated air pollution in Trujillo, Peru. September 2003.

**Nacher LP**, Aguilar MV, Allen J, Carlton C, Robinson R. *International Society of Exposure Analysis 2003 International Conference, Stresa, Italy.* Poster/Oral Presentation: Traffic-related occupational exposures to CO, PM<sub>2.5</sub>, benzene and toluene in Trujillo, Peru. September 2003.

Carlton C, Nacher LP, Macintosh D, Crowe M, Shea D, Achtemeier GL. *International Society of Exposure Analysis 2003 International Conference, Stresa, Italy.* Poster/Oral Presentation: Personal PM<sub>2.5</sub> exposures for fire fighters doing prescribed forest burns in the southeastern United States. September 2003.

Aguilar MV, Nacher LP. International Society of Exposure Analysis 2003 International Conference, Stresa, Italy. Oral Presentation: Personal exposure to CO, VOCs, and micro-environmental exposure to PM<sub>2.5</sub> of pregnant women in Trujillo, Peru. September 2003.

Nacher LP, Aguilar MV, Allen J, Carlton C, Robinson R. *American Thoracic Society/American Lung Association 2003 International Conference, Seattle, Washington*. Poster Presentation: Traffic-related occupational exposures to PM2.5, CO, VOCs and lead in Trujillo, Peru. May 2003.

Aguilar MV, **Naeher LP**, Allen J, Carlton C, Miller T, Robinson R. *American Thoracic Society/American Lung Association 2003 International Conference, Seattle, Washington*. Oral/Poster Presentation: Air Pollution Exposure of Pregnant Women in Trujillo, Peru. May 2003.

Beckett WS, Gent J, Belanger KE, Triche E, Nacher LP, Bracken MB, Leaderer, BP. *American Thoracic Society/American Lung Association 2003 International Conference, Seattle, Washington*. Poster Presentation: Women's Peak Flow Rate Variability is not Affected by Home Combustion Sources. May 2003.

**Nacher LP**, Holguin F. *American Thoracic Society/American Lung Association 2003 International Conference, Seattle, Washington.* Co-Chair Session A023-Air Pollution and Children's Health. May 2003.

Nacher LP, Diette GB. American Thoracic Society/American Lung Association 2003 International Conference, Seattle, Washington. Co-Chair Session A048-Environmental and Genetic Risk Factors for Pediatric Lung Disease. May 2003.

Nacher LP, Aguilar MV, Allen J, Carlton C, Robinson R. *American Industrial Hygiene Association 2003 Annual Conference, Dallas, Texas.* Poster Presentation: Air Pollution Exposure of Pregnant Women in Trujillo, Peru. May 2003.

**Nacher LP**. American Industrial Hygiene Association 2003 Annual Conference, Dallas, Texas. Oral Presentation for Post-Graduate Course: Appropriate IH Data Collection for Future Occupational Epidemiological Studies. May 2003.

**Nacher LP**, Sahmel J, Bangs G, Mattoano D. *American Industrial Hygiene Association 2003 Annual Conference, Dallas, Texas.* Monitor: Practical Approaches to Dermal Exposure Assessment. May 2003.

**Nacher LP**, Redford T, Viet S. *American Industrial Hygiene Association 2003 Annual Conference, Dallas, Texas.* Monitor: Occupational Epidemiology Technical Session. May 2003.

Aguilar MV, **Naeher LP**, Allen J, Carlton C, Miller T, Robinson R. *American Industrial Hygiene Association 2003 Annual Conference, Dallas, Texas.* Poster Presentation: Traffic-related occupational exposures to PM2.5, CO, VOCs and lead in Trujillo, Peru. May 2003.

Nacher LP. Athens Clean Air Workshop, Sponsored by Georgia Forestwatch. Seminar titled: Air Pollution and Health in Athens. February 2003.

**Nacher LP**, Liu, S. *International Society of Exposure Analysis 2002 International Conference, Vancouver, British Columbia.* Co-Chair (planned and organized session but could not attend conference due to illness in family) for Technical Session titled: Exposure and Health Impacts of Biomass Burning from Cookstoves and Forest and Agricultural burning. August 2002.

Nacher LP, Redlich C. *American Thoracic Society 2002 International Conference, Atlanta, GA.*. Co-Chair for Post-Graduate Course Titled: New Developments in Occupational and Environmental Health. May 2002.

Nacher LP. American Thoracic Society 2002 International Conference, Atlanta, GA.. Co-Chair for Scientific Poster/Presentation Session titled: Metals and the Lung. May 2002.

**Nacher LP**. *American Thoracic Society 2002 International Conference, Atlanta, GA.* Presenter for Sunrise Seminar titled: Methylcyclopentadienyl manganese tricarbonyl (MMT) and Human Health: A Critical Review of the Literature. May 2002.

Nacher LP, Neas L. *American Thoracic Society 2002 International Conference, Atlanta, GA.*. Co-Chair for Scientific Symposium Titled: Response to Particle Air Pollution: Science and Public Health. May 2002.

**Nacher LP**, Berner J. *International Society of Exposure Analysis 2001 International Conference, Charleston, SC.* Co-Chair for Technical Session titled: Persistent Organic Pollutants – Human Health and Subsistence-Diet Related Exposures, Arctic. November 2001.

**Nacher LP**, Sinks, T. *International Society of Exposure Analysis 2001 International Conference, Charleston, SC*. Co-Chair for Technical Session titled: Exposure to Selected Toxicants – Mercury. November 2001.

**Nacher LP**, Smith KR. *American Thoracic Society/American Lung Association 2001 International Conference, San Francisco, CA*. Co-Chair for Scientific Symposium titled: Fire Smoke: Exposures and Health Impacts. May 2001.

**Nacher LP**, White RH. *American Thoracic Society/American Lung Association 2001 International Conference, San Francisco, CA.* Co-Chair for ALA/ATS Joint Session titled: State of the Air: Using Air Quality Information for Public Health and Public Policy. May 2001.

**Nacher LP**, Rubin C, Noonan G, Hernandez M, Miller D, Paschal D, Jarrett J, DIGESA of Peru colleagues. 2000 National Lead Grantee Conference – Eliminating Childhood Lead Poisoning: Our Challenge for the Decade. Oral Presentation (delivered by co-author G Noonan): The use of isotope ratios to identify lead sources contributing to lead poisonings in Callao Constitutional Province, Peru. December 2000.

**Nacher LP**, Rubin C, Noonan G, Hernandez M, Miller D, Paschal D, Jarrett J, DIGESA of Peru colleagues. *International Society of Exposure Analysis 2000 International Conference, Monterey, CA*. Oral Presentation: The use of isotope ratios to identify lead sources contributing to lead poisonings in Callao Constitutional Province, Peru. October 2000.

**Nacher LP,** Smith KR, Leaderer BP. *American Thoracic Society/American Lung Association 2000 International Conference, Toronto, Canada*. Poster Presentation: Non-cookstove sources of indoor air pollution in the western highlands of Guatemala: kerosene lanterns and environmental tobacco smoke. May 2000.

**Nacher LP,** Smith KR, Leaderer BP, Mage D, Grajeda R. *The* 8<sup>th</sup> *International Conference on Indoor Air Quality & Climate, Indoor Air 99, Edinburgh, Scotland.* Oral Presentation (prepared by Luke Naeher, delivered by Kirk Smith): Spatial particle mass and CO indoor and outdoor concentrations in relations to sources in high and low density housing in rural Guatemala. August 1999.

**Nacher LP**, Leaderer BP, Beckett WS, Triche EW, Belanger K, Holford T, Bracken MB, Liu M. *American Thoracic Society/American Lung Association 1999 International Conference, San Diego, CA*. Poster Presentation: Variations in daily PEF in women by season, household characteristics, demographics and health history. April 1999.

**Naeher, Luke Peter.** September 1998. Yale University Doctoral Dissertation Defense: *Variations in Daily Peak Expiratory Flow in Women and Ambient PM*<sub>2.5.</sub> Ph.D., Epidemiology and Public Health/ Environmental Health Sciences, 1998

**Nacher, Luke Peter.** December 1998. State University of New York at Stony Brook Masters Thesis Presentation: *The Role Of Natural Sediment Concentration In An Aqueous Environment On The Partitioning Coefficient Of Hexachlorobenzene (HCB): A Headspace Partitioning Model Approach*. M.S., Marine Environmental Sciences, 1998

**Nacher LP**, Leaderer BP, Triche EW, Belanger K, Beckett WS, Holford T, Bracken MB. *International Society of Environmental Epidemiology 1998 International Conference, Boston, MA*. Poster Presentation: Healthy women's PEF variations with ambient summer concentrations of  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_4^{=}$ ,  $H^+$ , and  $O_3$ . August 1998.

Nacher LP, Leaderer BP, Triche EW, Belanger K, Beckett WS, Holford T, Bracken MB. *American Thoracic Society/American Lung Association 1998 International Conference, Chicago, IL*. Poster Presentation: Variations in daily peak flow in women and ambient air pollution. April 1998.

Leaderer BP, Belanger K, Nacher LP, Triche EW, Hellenbrand K, Holford T, Zheng H, Bracken MB, Beckett WS. *American Thoracic Society/American Lung Association 1998 International Conference, Chicago, IL.* Poster Presentation: Daily summer respiratory symptoms in infants associated with exposure to PM<sub>10</sub>, PM<sub>2.5</sub>, sulfate and ozone. April 1998.

Leaderer BP, Toth C, Naeher LP, Koutrakis P. 7<sup>th</sup> Annual Meeting of the International Society of Exposure Analysis and the Air and Waste Management Association, Research Triangle Park, NC. Oral Presentation (prepared and delivered by Luke Naeher): Relationship between regional/residential outdoor/indoor concentrations of  $PM_{10}$  and  $PM_{2.5}$ . November 1997.

**Nacher LP,** Leaderer BP, Smith KR, Grajeda R, Neufield L, Mage D, and Boleij JSM. Poster Presentation: CO as a tracer for assessing exposure to particulates in wood and gas cooking households of highland Guatemala. *Proceedings of the 7<sup>th</sup> International Conference on Indoor Air Quality & Climate, Indoor Air 96, Nagoya, Japan.* V.2: 417-422. 1996.

**Nacher LP**, Smith KR, Leaderer BP, Grajeda R, Mage D, and Boleij JSM. Poster Presentation: Particulates and CO in highland Guatemala: indoor and outdoor levels from traditional and improved wood stoves and gas stoves in three test houses. *Proceedings of the 7<sup>th</sup> International Conference on Indoor Air Quality & Climate, Indoor Air 96, Nagoya, Japan.* V.2: 405-410. 1996.

**Nacher LP**, Sherwood J, Smith KR, Leaderer BP, Mage D, and Boleij JSM. *American Industrial Hygiene Association 1994 Annual Conference*; Poster Presentation: WHO 1993 Research Project Titled: Indoor, outdoor, and personal carbon monoxide and particulate levels in Quetzaltenango, Guatemala: characterizations of traditional, improved, and gas stoves in three test homes. May 1994.

**Nacher LP.** Presentation to the *WHO Working Group on Childhood Pneumonia and Household Air Pollution in Developing Countries 1994 Meeting in Antigua, Guatemala*. Oral Presentation: WHO 1993 Research Project Titled: Indoor, Outdoor, and Personal Carbon Monoxide and Particulate Levels in Quetzaltenango, Guatemala: Characterizations of Traditional, Improved, and Gas Stoves in three Test Homes. February, 1994.