

## AIR POLLUTION AND HUMAN HEALTH

*The Department of Environmental and Occupational Health Sciences has received two new grants to study the association of air pollution with human health, including the largest research grant ever awarded by the Environmental Protection Agency. The EPA Northwest Research Center for Particulate Air Pollution and Health is planning a symposium in January to bring together air pollution researchers from throughout the country. We invite you to read more about these efforts and other activities within our department.*

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### \$30 MILLION EPA RESEARCH GRANT

Departmental researchers will receive \$30 million from the Environmental Protection Agency (EPA) for a 10-year study to examine the links between air pollution and heart disease among older adults of various ethnic groups.

The EPA awarded its largest research grant ever to Dr. Joel Kaufman, an associate professor in the Department of Environmental and Occupational Health Sciences. Kaufman's team will seek to pinpoint more precisely the relationship between small particles of air pollution that can lodge in the lungs, and heart disease, the nation's leading cause of death.

"We're going to be looking at questions vital to our understanding of the health effects of air pollution on cardiovascular disease," Kaufman said. "There's a lot yet to be understood about what explains cardiovascular disease besides the known factors such as high cholesterol, hypertension, and diabetes.

"There are still many unexplained variations in who gets heart disease, and when they get it. Some of the explanation is likely to come from studying environmental factors," Kaufman

said. "We hope this study will really define the contribution of particulate air pollution to cardiovascular disease."

At the announcement ceremony in Seattle, EPA Administrator Michael O. Leavitt said, "We have a national strategy to dramatically improve America's air quality. An important component of this strategy is to improve our understanding of the health risks from long-term exposure to particulate pollution, especially as it relates to coronary heart disease."

### IMPACTS OF AIR POLLUTION

This is the first major prospective cohort study designed to look at the chronic impacts of long-term exposure to air pollution on cardiovascular health. A cohort study monitors people over time to determine the effect of environmental exposures. The study will look at both subclinical measures of atherosclerosis—by ultrasound of the carotid arteries and CAT scan of the coronary arteries—as well as clinical cardiovascular events such as heart attacks and strokes. Exposure to air pollution will be calculated

*continued on page 2*

## \$30 MILLION EPA RESEARCH GRANT *continued from page 1*

*Despite their shortcomings, these prior studies show enough of an effect to clearly warrant nationwide action to limit exposures and conduct further investigation*

from monitors in several communities and questionnaires from subjects.

Participants will be followed for 10 years. About 8,700 people will be recruited in nine communities in California, Illinois, New York, North Carolina, Maryland, and Minnesota. Many of the subjects are already enrolled in other studies of cardiovascular health.

Earlier studies that included pollution and cardiovascular disease were either not originally designed to study heart disease or not originally designed to study air pollution, Kaufman said. For example, some focused on studying the effect of air pollution on the respiratory system or on cancer, with cardiovascular effects as a secondary element.

But despite their shortcomings, these prior studies show enough of an effect to clearly warrant nationwide action to limit exposures and conduct further investigation, Kaufman said. The results from the new study should create a firm foundation for public health decision-making, including government regulation of air quality, he added.

“You could look at those previous studies and say it’s as simple as ‘Shouldn’t we just have less pollu-

tion?’ In a sense it is really that simple—and the current scientific evidence is clear enough to take action for cleaner air. But some people have raised questions about whether the existing studies really form enough scientific evidence to be the basis for regulations against pollution. This study is designed to answer those questions,” Kaufman said.

### COLLABORATIVE STUDY

The study will include faculty from our department, Biostatistics, Civil and Environmental Engineering, Epidemiology, Geography, Medicine, and Statistics.

Collaborating institutions include the University of California, Los Angeles; Columbia University; Northwestern University; University of Minnesota; Johns Hopkins; Wake Forest; University of Vermont; Tufts-New England Medical Center; and the University of Michigan.

Kaufman, an attending physician in internal medicine, is also director of our Occupational and Environmental Medicine Program, associate professor of Medicine, and an adjunct associate professor of Epidemiology. He is also part of the EPA Northwest Research Center for Particulate Air Pollution and Health.

Initial staff members include Marty Cohen, director of exposure assessment; Sue Swan, research project manager; and Karen Hinckley, manager of MESA Air data coordinating activities. The new center is housed in the Roosevelt building.

The new study is built on the foundation of the National Institutes of Health’s Multi-Ethnic Study of Atherosclerosis (MESA), whose coordinating center is directed by Dr. Richard Kronmal of the UW Department of Biostatistics.

The 6,600 participants currently involved in the MESA study will be approached for recruitment into this new study. Some new subjects will also be recruited in specific communities in California and New York.

The study will take into account dietary information, family health history, smoking history, exposure to second-hand tobacco smoke, and other factors known or suspected to be related to cardiovascular disease.

### DR. JOEL KAUFMAN



Ryan Lyse

One weakness of most previous studies was that their researchers could only assume everyone in a particular city has the same exposure to pollution, Kaufman said. Actually, exposures vary within a metropolitan area, depending on such variables as wind direction, geographic features, and proximity to highways or other pollution sources.

The study will use existing air quality monitors in the cities, plus new monitoring networks, to characterize air pollution exposures down to the neighborhood level. For example, the researchers will test exposures by putting monitors outside the homes of about 3,600 participants at certain times. They will record how much time participants spend outside in various activities throughout the day, and how that affects their exposures.

—Walter Neary

## FOR MORE INFORMATION

EPA Northwest Research Center for Particulate Air Pollution and Health

<http://depts.washington.edu/pmcenter>

Levy D, Sheppard L, Checkoway H, Kaufman J, Lumley T, Koenig J, Siscovick D. (2001). A case-crossover analysis of particulate matter air pollution and out-of-hospital primary cardiac arrest. *Epidemiology*. 12(2):193-199.

MESA center <http://www.mesa-nhlbi.org>,  
<http://depts.washington.edu/mesaair>

Peters A, von Klot S, et al. (2004). "Exposure to traffic and the onset of myocardial infarction." *N Engl J Med*. 351(17): 1721-1730.

Sullivan J, Ishikawa N, Sheppard L, Siscovick D, Checkoway H, Kaufman J (2003). Exposure to ambient fine particulate matter and primary cardiac arrest among persons with and without clinically recognized heart disease. *Am J Epidemiol*. 157(6):501-509.

## RELATED STORIES

School bus research grant, page 4

January Symposium on air pollution, page 5

Rudolf Diesel, page 5

Sverre Vedal and Joellen Lewtas join faculty, page 11

## HOUSING & ASTHMA

Thirty-five specially designed units are being created for people with asthma in the new High Point development in West Seattle.

The Breathe Easy Homes Demonstration Project, a partnership led by Neighborhood House and the Department of Environmental and Occupational Health Sciences, received almost \$1 million in funding from the US Department of Housing and Urban Development.

"People who live in low-income housing have higher rates of asthma," said assistant clinical professor Tim Takaro, principal investigator in the research project associated with the specially designed homes. "An estimated 10 to 12 percent of residents in public housing suffer from asthma. Working with our community partners, Neighborhood House and Public Health-Seattle and King County, we'll try to determine if special efforts to provide allergen-reduced and dust-reduced environments to children with asthma can make a measurable difference in their health."

The special units, called Breathe Easy Homes, will include a filtered ventilation system, cabinets free of asthma-triggering glues, easy-to-clean Marmoleum flooring in baths and kitchens, low-pile carpeting on stairs, "walk-off" doormats to reduce tracked-in dirt, and a HEPA filter vacuum cleaner. Construction methods and materials, including landscaping, are designed to reduce health problems caused by airborne allergens.

Takaro's study will follow the asthma symptoms of children for a year in their present homes, and then for another year in the new homes, to see if there is a measurable benefit to their health.

Families may begin moving into these Breathe Easy Homes starting next September.

—Pam Sowers

## FOR MORE INFORMATION

<http://www.seattlehousing.org/Newspage/newsarticles/HealthyHomesgrant.htm>

# SCHOOL BUS RESEARCH GRANT

School districts are investing hundreds of millions of dollars in retrofitting diesel engines in school buses to take old, soot-spewing buses off the road. Associate Professor L.-J. Sally Liu has received a five-year, \$3 million grant from the National Institute of Environmental Health Sciences to study the effect the fleet change has on children's health in the Puget Sound area.

*Graduate student Michael Compher prepares to install testing equipment on school buses*

Diesel exhaust has been associated with worsening asthma and allergies among children. Regulatory agencies and school districts are making major efforts to retire old diesel engines. However, a serious question remains unanswered: What magnitude of impact will this major governmental environmental policy have on public health, especially the health of asthmatic children who commute by diesel bus?

"This study is the only one of its kind to examine, not only children's exposure to diesel bus exhaust, but also the associated respiratory effects and lung function growth," Liu said. The planned phase-out of old buses provides a natural experiment for the researchers.

Liu and her recent master's student, Michael Compher, worked with the Puget Sound Clean Air Agency, Washington Department of Health, the transportation department in the Seattle Public Schools, and Lowell Elementary School to conduct a small-scale feasibility study.

Liu and her research team will quantify the changes in particle and toxic gas exposures in asthmatic children and determine whether children changing to buses with cleaner fuels and engines have better lung function and less inflammation.

## LOCAL STUDENTS

This study will include three years of exposure and health monitoring of 500 asthmatic school children who commute to school in the Puget Sound area of Washington state. Monthly measures of pulmonary function using spirometry, pulmonary inflammation assessed by exhaled nitric oxide, asthma symptoms, medications, and clinical encounters will be gathered from all children during the school year.

The 500 children will be recruited from several school districts to represent three exposure scenarios: 125 children riding retrofitted diesel buses or commuting by car over all years of study; 250 children riding old diesel buses, which will be retrofitted after the first and second year of the study; and 125 children riding old diesel buses throughout the study.

Exposures will be estimated for all subjects, and an in-depth individual exposure assessment will be performed on 144 of the students and 48 of the buses each monitoring year. These personal exposure measurements will be used to characterize and distinguish children's exposure to diesel exhaust from other sources, and develop an exposure model for those who are not personally monitored.

Liu's co-investigators on the study include pulmonologists Jeffrey Sullivan of our department and Teal Hallstand of School of Medicine, epidemiologist Joel Kaufman of Medicine and our department, and biostatistician Lianne Sheppard of our department and Biostatistics.



*Courtesy of M. Compher*

### ON AIR POLLUTION

The Northwest Particulate Air Pollution Research Center is planning a free one-day symposium Jan. 24, at the UW Medical Center's Hogness Auditorium, to present six years of particulate matter research on combustion-derived particles.

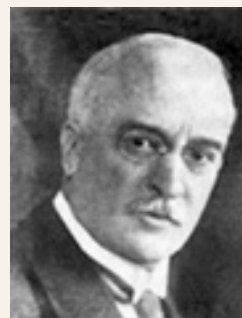
The symposium coincides with the center's annual External Science Review Committee meeting. This will be the last opportunity for currently funded research to be publicly presented on such a large scale.

The Center will look back on its first five years of research accomplishments, including:

- increased understanding of the correlation among indoor, outdoor, personal, and central site exposures to particulate matter
- establishment of the apolipoprotein-E deficient (apoE [-/-]) mouse as an appropriate model of susceptibility for air pollution studies
- investigation of acute and chronic effects of particulate matter on cardiovascular health
- documentation of the use of exhaled breath nitric oxide as a noninvasive measure of airway inflammation in air pollution studies
- development of new statistical methods regarding case-crossover studies and use of source apportionment in health effects studies

Topics will include wood smoke, agricultural burning, and diesel exhaust. Presentations will include the fields of epidemiology, exposure assessment, toxicology, biomarkers, statistical methods in epidemiology, health effects, and aerosols.

For more information, contact Collen Marquist at [marquist@u.washington.edu](mailto:marquist@u.washington.edu) or 206-616-6570.



Rudolf Diesel was born in 1858 in France and began his career as a refrigerator engineer. He worked on various heat engines, with a goal of developing an engine where the combustion would be carried out within the cylinder. His idea was to enable independent craftsmen and artisans to compete with large industry.

The diesel engines of today are refined and improved versions of Rudolf Diesel's 1893 concept. They are often used in submarines, ships, locomotives, and large trucks and in electric generating plants.

Though best known for his invention of the pressure-ignited heat engine that bears his name, Diesel was also a well-respected thermal engineer and a social theorist.

Diesel's inventions have three points in common: They relate to heat transference by natural physical processes or laws, they involve markedly creative mechanical design, and they were initially motivated by the inventor's concept of sociological needs.

*—US Department of Energy  
Energy Information Administration*



# KIDS & KEYBOARDS—A REAL STRETCH

Have you every imagined what your computer keyboard looks like to a child?

Imagine what it would be like to type on a keyboard that was nearly the width of a doorway. Imagine putting your hand around a mouse the size of a grapefruit (or softball). Imagine that you had to push keys or mouse buttons that were designed for someone five times stronger that you are.

That's what the standard computer keyboard feels and appears like to a 5-year-old child, who is half to two-thirds the size of an adult.

Janet Blackstone, a graduate student in the department's safety and ergonomics program, set out to learn how computers fit children. She looked at 5-year-olds, because that's the age when most children start using computers in school.

Using reference books on anthropometry, which is the science of body dimensions and measurement, she collected information on the size and strength of children as they develop into adults.

She also looked at injury rates among children, and was surprised by recent studies that found that 30–60% of children complain of discomfort attributed to computer use.

By age five, three-fourths of children are already using computers, and a national goal is to put computers in every classroom. Many children spend more than three hours a day on the computer, yet there has been little study of potential health implications, especially in the classroom.

Blackstone is studying with Assistant Professor Peter Johnson. They recently presented their findings at the Human Factors and Ergonomics Society's 48<sup>th</sup> annual meeting in New Orleans.

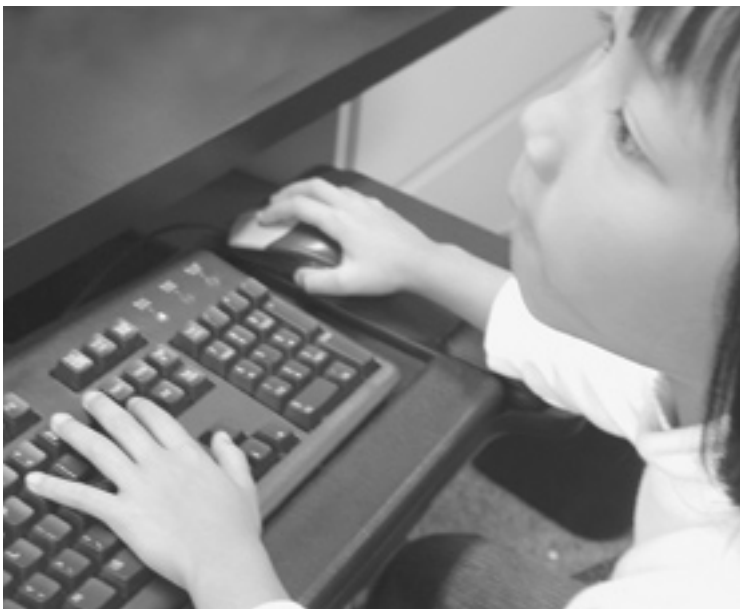
Blackstone plans to do exposure assessments for her master's thesis with 15 children and their same sex parent (the size and shape the child is most likely to evolve to). She specifically wants to find out how children's physical exposures differ from adults when using standard adult-sized keyboards and mice.

In addition, Blackstone wants to determine how the exposures change if kids use child-proportioned devices. A few child-size keyboards and mice are on the market, but their use isn't widespread, especially in the classroom. She envisions the day when parents purchase new keyboards and mice for their children as often as they buy them new shoes.

## FOR FURTHER READING

- Barrero M, Hedge A, 2002. Computer environments for children: A review of design issues. *Work*;18(3):227–237
- Harris C, Straker L, 2000. Survey of physical ergonomics issues associated with school children's use of laptop computers. *International Journal of Industrial Ergonomics*. 26(3):337–346
- Jacobs K, Baker NA, 2002. The association between children's computer use and musculoskeletal discomfort. *Work*.18(3):221–226.

*Imagine putting your hand around a mouse the size of a grapefruit. That's what this 5-year-old is experiencing*



Tushna Lehman

# SUSTAINABLE AGRICULTURE ISSUES

“WE  
BEGAN  
FARMING  
SUSTAINABLY  
BECAUSE WE  
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TO ASK OUR  
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ANYTHING  
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WERE NO  
LONGER  
WILLING  
TO DO.”

A September conference in Oregon was believed to be the first in the nation to explore how occupational safety and health can be integrated into sustainable agriculture.

It seemed fitting that the third annual Western Regional Agricultural Safety and Health Conference was held at McMenamins Edgefield in Troutdale, Oregon, the former Multnomah County Poor Farm. The farm’s residents once sustained themselves and supplied other county facilities by their agricultural production. The conference theme was “Cultivating a sustainable agricultural workplace.”

The conference was hosted by the Pacific Northwest Agricultural Safety and Health Center, whose director, Richard Fenske, said, “It highlighted worker safety and health as an essential part of social equity.” Sustainable agriculture integrates three main goals—environmental health, economic profitability, and social equity.

The keynote speaker was Karla Chambers, co-owner of Stahlbush Island Farms, a 2,000-acre sustainable family farm in Corvallis. A fifth-generation Oregon farmer, she said she and her husband began farming sustainably because they “didn’t want to ask our workers to do anything that we were no longer willing to do.”

More than 25 other speakers addressed the forum on topics as diverse as worker standards, zoonotic diseases, new safety interventions, and injuries to workers in California and the Northwest. In addition, 16 posters were presented.

Producers from Washington’s Inaba Produce Farms, California’s Swanton Berry Farm and Fetzer Vineyards, Oregon’s Stahlbush Island Farms, and several Columbia Valley orchards explained how they are improving the workplace, their bottom line, and the quality of their soil, water, and crops.

They described their efforts with housing, health care, shared management, and strategies to provide year-round work. They spoke about organic farming, strip tilling, cover cropping, composting, and using low-pressure irrigation and pesticide alternatives.



Stacey Holland

*Judy BlueHorse Skelton, herbalist, educator, and writer, spoke on “Sustainability through Native American eyes” and helped lead a Columbia River Gorge tour*

Presenters from the Oregon Sustainability Board and Portland-based Food Alliance described how sustainability can be supported by policy and certification.

Another aim of the conference was to start developing a research agenda for worker health and safety in sustainable agriculture. One focus will likely be to devise ergonomic solutions to musculoskeletal problems that can result from sustainable practices, such as hand weeding.

In addition to Oregon, California, and Washington, attendees came from Idaho, Hawaii, Nevada, and as far away as North Carolina. Half of the 110 conferees were from academia, including 12 students. Almost a quarter came from public agencies, mostly those of Western states. Producers, business people, private consultants, and several nonprofit organizations were well represented, with health care providers, labor representatives, and members of the Yakama and Paiute Nations also attending.

Next year’s conference will be held at Asilomar Conference Grounds, Monterey, California, Sept. 7–9.

—Eric Swenson



# CONTINUING EDUCATION

To confirm this schedule or find more information about these courses, call 206-543-1069 or visit the Continuing Education website at <http://depts.washington.edu/ehce>. Courses are in Seattle unless noted.

## NW CENTER FOR OCCUPATIONAL HEALTH & SAFETY

Jan 18	Annual 8-Hour Hazardous Waste Refresher
Jan 19	Annual 8-Hour Hazardous Waste Refresher
Jan 20	Annual 8-Hour Hazardous Waste Refresher
Jan 21	Annual 8-Hour Hazardous Waste Refresher
Feb 10	Puget Sound Occupational and Environmental Medicine Grand Rounds
Feb 23	Managing Your Workers' Compensation Program
Mar 10	Puget Sound Occupational and Environmental Medicine Grand Rounds

## OSHA TRAINING INSTITUTE EDUCATIONAL CENTER

*Not for OSHA rules only! All classes offer training that meets WISHA, OR-OSHA, and Alaska state standards.*

Jan 4-7	OSHA 510: OSHA Standards for Construction ( <i>Richland</i> )
Jan 5-7	OSHA 502: Construction Trainer Update ( <i>Portland</i> )
Jan 8, 15, 22	OSHA 503: General Industry Trainer Update ( <i>Portland</i> )
Jan 10-12	OSHA 2264: Permit-Required Confined Space Entry ( <i>Portland</i> )
Jan 10-13	OSHA 501: OSHA Trainer Course for General Industry
Jan 19-21	OSHA 2225: Respiratory Protection
Jan 24-27	OSHA 3095: Electrical Standards ( <i>Portland</i> )
Jan 24-27	OSHA 3110: Fall Arrest Systems
Feb 1-4	OSHA 510: OSHA Standards for Construction
Feb 5, 12, 19, 26	OSHA 510: OSHA Standards for Construction ( <i>Portland</i> )
Feb 7-10	OSHA 5600: Disaster Site Worker Train-the-Trainer
Feb 8-11	OSHA 500: Trainer Course for Construction Industry ( <i>Portland</i> )
Feb 14-17	OSHA 511: General Industry Standards ( <i>Boise</i> )
Feb 15-18	OSHA 511: General Industry Standards ( <i>Anchorage</i> )
Feb 22-25	OSHA 3010: Excavation, Trenching, & Soil Mechanics ( <i>Portland</i> )
Feb 23-25	OSHA 2250: Principles of Ergonomics
Mar 1-4	OSHA 2015: Hazardous Materials
Mar 7-9	OSHA 502: Construction Trainer Update
Mar 7-10	OSHA 6000: Collateral Duty for Other Federal Agencies ( <i>Portland</i> )
Mar 9-11	OSHA 503: General Industry Trainer Update
Mar 14-15	OSHA 7600: 16-Hr. Disaster Site Worker ( <i>Richland</i> )
Mar 21-24	OSHA 521: OSHA Guide to Industrial Hygiene
Mar 28-30	OSHA 2225: Respiratory Protection ( <i>Portland</i> )
Mar 29-Apr 1	OSHA 6000: Collateral Duty for Other Federal Agencies ( <i>Richland</i> )





## CONFERENCE PRESENTATIONS

*International Society for Environmental Epidemiology 16<sup>th</sup> Conference, August 2004, New York City*

**Miller KA**, Siscovick DA, **Sheppard L**, Shepherd K, Anderson GL, **Kaufman JD**. Air pollution and cardiovascular disease events in the women's health initiative observational (Whi-Os) study (*best paper award*)

**Faustman EM**. Center for Child Environmental Health Risks Research

**Carr K**, **Kaufman J**, Lumley T, Davis R, Shepherd K, Ritz B, **Larson T**. Effect of ambient air pollution on infant bronchiolitis

**Griffith WC**, **Faustman EM**. Impact of large within-person variability and detection limits of toxicant exposures on sampling frequency in the design of pregnancy cohort studies to estimate doses to the fetus

*Departmental researchers are in bold-faced type*

*Human Factors and Ergonomics Society's 48<sup>th</sup> Annual Meeting, September 2004, New Orleans*

**Blackstone J**, **Johnson P**. Comparison of child and adult anthropometry: Considerations for input device design

**Winnemuller L**, **Camp J**, **Russell S**, **Ibbotson-Brown J**, **Johnson P**. Standardized vs. actual work: Assessment of trapezius muscle activity during grocery cashiering

**Russell S**, **Winnemuller L**, **Camp J**, **Johnson P**. Comparing the results of five lifting analysis tools

**Johnson P**, **Ibbotson J**, **Dennerlein J**. An EVA-based method for non-invasively deriving force exposures during computer work

*American Public Health Association 132<sup>nd</sup> Annual Meeting & Exposition, November 2004, Washington, DC*

Butterfield P, Hill W, **Butterfield P**. Testing a PHN environmental risk reduction intervention: Household and biomarker data from rural low-income families

Daly C, Wickizer TM, Perla M, **Franklin GF**.

Longitudinal assessment of health status and disability among workers enrolled in a prospective two-year study in Washington State  
Davis M, **Acharya C**, Wilson M, Chao S, Barry M, Diangson T, **Burbacher T**. Environmental Justice Needs Assessment Project: An approach to meaningfully engage partners in Seattle/King County, WA

**Frevert K**, **Rudensey L**, **Burbacher T**. Building connections across disciplines and communities in Washington State

**Hall, KJ**, **Camp JE**, **Morris SL**. Content analysis: Borrowing a page from communication research

**Hall KJ**, **Linker DA**, Miller ME. Historically speaking: Why some teen workers are excluded from child labor laws

**Hofmann JN**, Guardado J, **Keifer M**, Wesseling C. Mortality among a cohort of DBCP-exposed banana plantation workers in Costa Rica

Krieger J, **Takaro T**. Housing and asthma: Interventions and strategies from Seattle

Krieger JW, **Takaro TK**. Using data to promote healthy built environments

Kuehn CM, Mueller B, **Checkoway H**, Erickson C. Using GIS to estimate environmental exposure: Missing data and potential bias

**Linker DA**, Feldman D, Patterson D, **Freeman KS**, **Burbacher T**. Workplace health and safety curriculum use by Washington educators: A three-year follow-up evaluation

**Nguyen FT**. Silica exposure assessment of refractory brick workers in Vietnam

Perla M, Wickizer TM, Daly C, **Franklin GF**. Employment patterns of injured workers in a two-year follow-up study in Washington State  
Sullivan M, Krieger JW, Sharify DT, Phillips T, **Takaro TK**. Healthy Homes and Communities project: Assessing the impact of public housing redevelopment

Wickizer TM, **Franklin G**, **Fulton-Kehoe D**. Improving methods to identify inappropriate care: Targeting strategies for utilization management



## PEOPLE & PLACES

Professor **Michael Morgan** presented the autumn 2004 distinguished faculty lecture for the School of Public Health and Community Medicine. His topic was “Biomarkers of inhalation exposure: Don’t hold your breath (please).”

Professor **Harvey Checkoway** was selected as the 2004 recipient of the Herman A. Tyroler Distinguished Alumni Award from the University of North Carolina’s Department of Epidemiology. In October, he presented a seminar in Chapel Hill entitled “Investigating environmental exposure and disease associations: From slam dunks to needles in haystacks;” a seminar, “Occupational exposures and cancer risks among women textile workers in Shanghai, China” at the Massey University Centre for Public Health Research in New Zealand; and a keynote talk, “Methodological challenges in identifying occupational risk factors for neurodegenerative diseases” at the 17th International Symposium on Epidemiology in Occupational Health, Melbourne, Australia.

Professor **David Eaton** chairs a new National Academy of Sciences/National Research Council committee to review the recent Environmental Protection Agency dioxin risk assessment. He presented a lecture on hepatocarcinogenesis at the American Congress of Clinical Toxicology; a talk on gene-environment interactions at an Institute of Medicine-sponsored conference on “Implications of Genomics for Public

Health,” at the National Academy of Sciences; and “Recent Advances in Toxicology” and “Hormesis” at the Northwest Occupational Safety and Health Conference in Portland.

**Rolf Hahne**, retired director of the Environmental Health Laboratory, spent four weeks at the Faculty of Public Health, Burapha University in Thailand doing work for the International Scholars for Occupational and Environmental Health program.

**Lisa (Smith) Corey**, graduate student in Toxicology, took second place for her presentation “Response of an ApoE<sup>-/-</sup> mouse model to Seattle Ambient Particulate Matter” at the annual meeting of the Pacific Northwest Association of Toxicologists, in Oregon, in September. Other graduate students who attended were **Katie VanDeMark**, **Isaac Mohar**, **Nicole DeFrank**, and **Heather Klintworth**.

Associate Professor **John Kissel** received a Star Grant from the Environmental Protection Agency.

Professor **Dan Luchtel** has been appointed to chair the UW Faculty Affairs Council for 2004–2005.

Two of our PhD graduates have accepted faculty positions. **Alex Lu** will be teaching at Emory University and **Chang-fu Wu** at the National Taiwan University.

**Tram Tran** is the new Superfund program manager, replacing **Gail Gilliland**, who has become administrator of the UW’s Department of Genome Sciences.

**Catherine Karr**, recently appointed adjunct assistant professor and director of the Pediatric Environmental Health Specialty Unit, was quoted in *The Seattle Times*, had an op-ed column in the *Post Intelligencer*, and was interviewed on KOMO regarding the recent lead level concerns in the Seattle Public School District.

**Alon Peretz** is a new senior fellow with Dr. **Joel Kaufman**. Dr. Peretz has been sent for training in the US before joining the faculty at the School of Public Health at Tel Aviv University and working at the occupational health center of Sherutei Beriut Clalit (the largest HMO in Israel). He also will train in risk assessment with **Elaine Faustman**.

Professor **Lucio Costa** gave an invited talk on biomarkers in neurotoxicology at the Sixth International Symposium on Biological Monitoring in Occupational and Environmental Health, Heidelberg, Germany, in September. He has been appointed to the advisory committee on polybrominated diphenyl ethers (PBDE) of the Washington state departments of Ecology and Health and the expert panel on stimulants



top left: **Lisa Corey**;  
below left to right:  
**Harvey Checkoway**,  
**Mike Morgan**



(methylphenidate and amphetamines) for the National Toxicology Program's Center for the Evaluation of Risks to Human Reproduction.

Senior Lecturer **Janice Camp** has been named associate editor of the *Journal of Occupational and Environmental Hygiene*.

Toxicology graduate student **Elizabeth Gribble** received a scholarship to attend the Risk Assessment Summer School in Germany this summer. The course, sponsored by the International Union of Toxicology (IUTOX), focused on participatory learning about chemical risk assessment. Gribble presented a review of the recent decision by the International Agency for Research on Cancer (IARC) to change the classification of formaldehyde from a "probable human carcinogen" to a "known human carcinogen." She was one of 25 students and 8 faculty members from 17 countries who attended.

## NEW FACULTY

The Department of Environmental and Occupational Health Sciences has appointed three new senior faculty members.

**Dennis Shusterman** is a professor, with a primary appointment in Medicine, who will be assuming the directorship of the Occupational and Environmental Medicine Residency training program at Harborview Hospital.

He came from the University of California, San Francisco, where he directed the Upper Airway Biology Laboratory. His research interests include latex allergy, vocal cord dysfunction, and the effects of irritants on the upper airway. He has studied workplace hazards such as solvents and chlorine, and has published more than 60 research papers in peer-reviewed journals. He earned his MD degree at the University of California, Davis, and his MPH at the University of California, Berkeley.

**Sverre Vedal**, professor in the Occupational and Environmental Medicine program, came from Denver, where he was a professor in the Division of Environmental and Occupational Health Sciences, National Jewish Medical and Research Center, and in the Department of Preventive Medicine and Biometrics and the Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado. He previously had been head of Vancouver General Hospital's respiratory division and resident training program, and professor of medicine at University of British Columbia.

He has a degree in Epidemiology from Harvard and is



above left to right:  
**Sverre Vedal,**  
**Dennis Shusterman**  
right: **Joellen Lewtas**



board certified in pulmonary medicine. His primary research interest is in health effects of air pollution, especially particulate matter. His other research interests include occupational lung disease, and at National Jewish he participated in a genetic epidemiology study of beryllium sensitization and disease. He has published 80 papers in peer-reviewed journals.

**Joellen Lewtas** is a research professor in the Environmental Health program. She recently retired from the EPA's Office of Research & Development where she was affiliated with both the National Exposure Research Laboratory and National Health and Environmental Effects Lab. She holds a PhD in Biochemistry from North Carolina State University, and has been on our affiliate faculty since 1998. She previously served on the faculty of the European School of Oncology and the adjunct faculty of the School of Public Health, University of North Carolina, Chapel Hill.

Her research interests include human exposure and health effects of combustion emissions, airborne particulate matter, and its organic components. Her research includes the use of biomarkers in the assessment of human exposure, DNA-dosimetry, susceptibility, and cancer risk from complex air pollutant mixtures of complex combustion emissions. She has published more than 125 papers in peer-reviewed journals.

Oct. 15 marked the public launch of *Campaign UW: Creating Futures*, a \$2 billion, eight-year fund-raising drive that involves the University of Washington's three campuses.

Campaign UW began in June 2000 with a four-year "silent phase," during which the University focused on leadership gifts and commitments. The campaign reached its midway mark at the end of June, with more than \$1.14 billion secured.

The campaign will support students, faculty, programs, and facilities. The goal is to add \$400 million to the UW's Consolidated Endowment Fund, the pool of individual endowments established by private donors for faculty chairs and professorships, and student scholarships and fellowships. Campaign goals also include \$350 million for facility renovations and new buildings.

The School of Public Health seeks to raise \$90 million for five key areas: building new facilities for the school, strengthening the public health workforce, reducing obesity through the Center for Public Health Nutrition, enhancing the translation of science into policy and practice, and integrating the concepts of global public health into all aspects of the school's teaching, research, and service.

For more information, visit the school's development office website at <http://sphcm.washington.edu/alumni/giving.asp>, or call 206-543-1144.

—*Chelé Shepard*



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