



DEPARTMENT OF ENVIRONMENTAL HEALTH

ENVIRONMENTAL HEALTH *News*

SCHOOL OF PUBLIC HEALTH AND COMMUNITY MEDICINE ■ UNIVERSITY OF WASHINGTON ■ AUTUMN 2002

CULTIVATING COLLABORATIONS

col·lab·o·rate: to work jointly with others or together especially in an intellectual endeavor, or to cooperate with an agency or instrumentality with which one is not immediately connected

The Department of Environmental Health collaborates with partners as distant as the World Health Organization and as near as retailer Eddie Bauer. This issue of *Environmental Health News* describes several of the department's collaborations that seek to improve international children's health, workplace and agricultural safety, and continuing education for Washington state's medical community. These collaborations benefit both partners, and help the department achieve our educational and outreach missions. They also ensure that our research finds practical applications throughout our state, our region, and beyond.

COLLABORATING ON CHILDREN'S HEALTH

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In 2000, more than 4.7 million children under the age of 5 died from illnesses aggravated by unhealthy environments, according to the World Health Organization (WHO). Every 2½ hours as many children die as the total toll of the September 11 terrorist attacks.

WHERE IS THE OUTRAGE?

Where is the outrage? asks Elaine Faustman, professor of Environmental Health and director of the department's Center for Child Environmental Health Risks Research, also called the Child Health Center or CHC. She is working in a number of international forums to address preventable problems that cut across borders, but fall most heavily on children and the poor.

Faustman helped draft the WHO statement that came out of a March 2002 Bangkok summit on children. This emphasis on children's health was reinforced this summer with a statement from a Johannesburg summit.

Together these initiatives have heralded WHO's new children's action plan called "Healthy Places, Happy Faces."

The first step (see page 3) has been to collect *existing information and knowledge* developed by research groups such as the CHC. Ground-breaking work has also been done in less-developed countries, Faustman said, particularly a longitudinal study of children for ten years in South Africa called "Mandela's Kids." This effort, supported by former South African President Nelson Mandela, included policy changes, education, and research into topics such as nutrition, violence, and social structure in the newly refocused South African government. "This was a successful yet low budget study—we could learn from this approach," Faustman said.

The second step is *focused research*, involving coalitions and collaborations among academic institutions, international partners,



Centers for Disease Control and Prevention (CDC)

*Children in
an African
village*

*inset: Elaine
Faustman*

nongovernmental organizations (NGOs), religious groups, women's groups, governmental organizations, and the private sector. Faustman has been involved in a number of collaborations over the past two decades. These include relationships between Faustman's Institute for Risk Analysis and Risk Communication (IRARC), housed in the Department of Environmental Health, and several Washington tribal groups, Puget Sound community groups, eastern Washington farming communities, the Environmental Protection Agency (EPA), and the Washington state Department of Health.

The WHO plan emphasizes *clear policies*. The European Union has been a driving force behind increased risk assessment and testing internationally. In the US, the EPA has put a high priority on risk assessment, Faustman said. The EPA helps fund the CHC at the University of Washington.

The WHO plan fosters *action for healthy environments for children*. Faustman has been a

leader in international efforts to harmonize approaches to the assessment of risk from exposure to chemicals.

The International Programme on Chemical Safety (IPCS) has based its harmonization project partly on the Bradford-Hill criteria for causality that Faustman modified for developmental toxicity. These criteria provide an epidemiological framework for evaluating causes of disease and they reveal why it's important that our programs are part of the UW School of Public Health and Community Medicine, Faustman said. "It's essential for us to develop collaborations with epidemiologists."

The WHO plan calls for *action through the health and other sectors*, such as environment, energy, water, housing, education, agriculture, transport, and finance. Locally, the CHC fosters collaborations between researchers from various departments and disciplines who work together to reduce the effects of environmental pesticide

exposure in children. Two major topics of study are assessment of factors that define children's susceptibility to pesticides and evaluation of environmental exposures and their effects on children's growth and development.

The CHC, in collaboration with the Pacific Northwest Agricultural Safety and Health Center, incorporates scientific findings on pesticide toxicity and exposure into risk assessment models developed at IRARC. This helps ensure that the models are protective of children's health.

The endpoint for the WHO model is *healthy places, happy faces*. "Let's ensure that these laudable goals are reached through quick, decisive, collaborative actions with a war for children's health," Faustman said.

ADDRESSING HEALTH CONCERNS

In addition to directly working on global children's health issues, Dr. Faustman is active in increasing educational opportunities for young scientists from all over the world. She was one of the initial participants in the Risk Assessment Summer School (RASS), a collaborative program sponsored every two years by the International Union of Toxicology. She attended the first summer school in 1983 in Menstrup Kro,

Denmark, and has been a faculty member at the past three RASSs, the only student to come back as a faculty member. Her first session led to a six-year collaboration with a woman scientist from Italy.

This past summer, Faustman traveled to Malta with recent graduate Nancy Judd, who has developed her own collaboration with a researcher from Switzerland. "RASS is the most engaging course I've ever participated in," said Judd. "The faculty, the students, and the structure of the course all facilitate an incredible learning experience." PhD graduates Tom Lewandowski and Dolo Diaz have also participated in this program.

FOR FURTHER READING

Center for Child Environmental Health Risks

Research, <http://depts.washington.edu/chc/>

UNICEF, Children in the New Millennium:

Environmental Impact on Health,

<http://www.unicef.org/programme/wes/pubs/enoh/enoh.htm>

World Health Organization, Healthy Environ-

ments for Children: An Alliance to Shape the

Future of Life, [http://www.who.int/peh/ceb/](http://www.who.int/peh/ceb/HECI_brochure.pdf)

[HECI_brochure.pdf](http://www.who.int/peh/ceb/HECI_brochure.pdf)

In 2000, more than 4.7 million children under the age of 5 died from illnesses aggravated by unhealthy environments

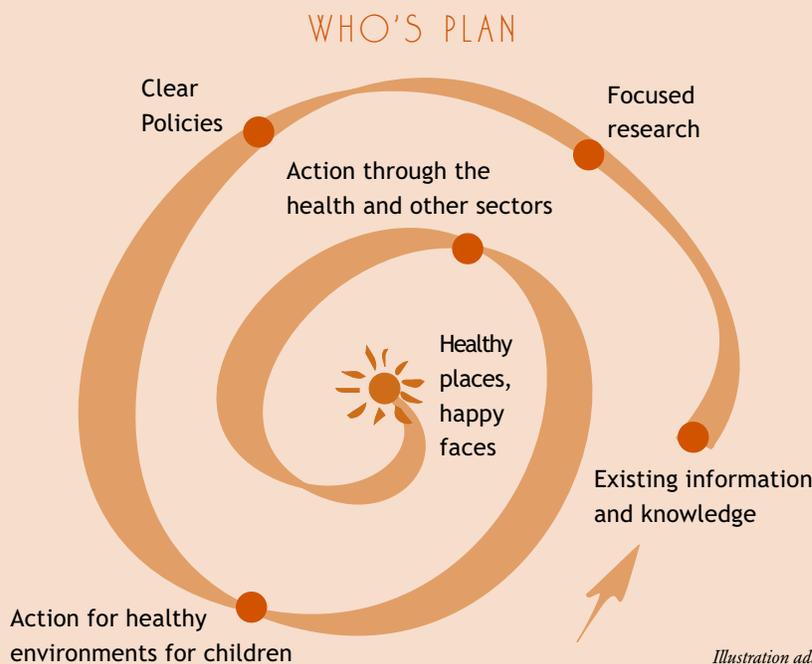


Illustration adapted from WHO report

S TOCKROOM BECOMES A CLASSROOM

The Eddie Bauer sales floor became a classroom last quarter for graduate students in Environmental Health 559, a graduate course in Applied Industrial Hygiene, Safety, and Ergonomics. Two teams of graduate students helped the retail chain improve its safety environment.

The course's purpose was to apply occupational safety and health principles in consultation with a local company. Goals were to identify workplace exposures; determine assessment methods; assemble, analyze, and interpret data and observations; identify regulatory issues, recommend exposure controls; and write and present a technical report.

Students worked with Eddie Bauer management in Bellevue on two projects: consulting on material handling in a retail store and ergonomic issues at the corporate office. Both teams helped the company prepare for implementation of the Washington state ergonomics rule.

Along the way, the students learned how to review company accident prevention plans, interpret state regulations, manage a project budget, and present findings to company management and its safety committee.

A WIN-WIN SITUATION

Rick Gleason and Kate Stewart, two part-time instructors who also work as health and safety consultants in the region, joined faculty members Janice Camp and Peter Johnson. Together they taught technical skills, and also the fine art of consulting, such as how to ask the right questions to identify problem areas and how to present their findings to a client in a clear and concise manner.

The collaboration was "a win-win situation," Johnson said. "Students benefit from the real-world project and the company benefits by having freshly educated minds tackle problems the company might not otherwise have the resources for."

"They got out a microscope, went over work stations, and gave us a nice 40-page booklet with a reference section, readings, and workbooks," said

Mark Anderson, manager of asset protection and loss control at Eddie Bauer. "This will be an excellent document for us to use going forward with our internal program."

Like other businesses in Washington, Eddie Bauer needs to evaluate its operations to see if any tasks have musculoskeletal risks that would classify them as a "caution zone job" under the Washington state ergonomics rule. None were found, but the students identified some tasks where lifting methods could be improved to reduce the risk of injury.

SAFE WORKPLACE

The student consultants also conducted a safety evaluation and found overall standards to be "very good." However, because in a stockroom every square inch of potential storage space is used, they were concerned about access to items stored on the higher shelves. They analyzed space efficiency and product placement, and proposed a layout to improve product flow and use of space. They also suggested that the store install the type of movable ladder that is found in bookstores and libraries so workers wouldn't need to lift, move, or climb up stepladders.

The stone flooring that gives Eddie Bauer stores their characteristic outdoor look can potentially create problems for workers. The students suggested installing anti-fatigue mats behind the cash registers and equipping carts and portable clothes racks with larger wheels so they would push more easily on the uneven floors.

Anderson said Eddie Bauer will share the students' findings with its store managers and with the real estate people who design fixtures for new and remodeled stores.

WORKING TOGETHER

"The Eddie Bauer people seemed pleased that we offered a fresh view of their operations," said Anca Bejan, a master's student who analyzed operations at the firm's Bellevue Square store.

"The Eddie Bauer health and safety management



Peter Johnson

Stockroom supervisor Michelle Salazar (at left) consults with DEH graduate students Anca Bejan and Wayne Turnberg

team was particularly helpful in providing a supportive atmosphere for student learning,” said instructor Camp.

Store employees were cooperative and receptive, even when the retail pace was fast and furious, said Wayne Turnberg, a PhD student. He observed a “set change,” when a sales floor is rearranged with new modules, mannequins, and shelves. The change happened at 5 a.m. on a Sunday, before the store opened for the day. The students’ report praised the set change team’s spirit and preparation, but suggested some efficiency improvements.

Students researched the company’s worker compensation claims history, and developed recommendations tailored to actual conditions. Data showed problems with material handling, or

“keeping the folks safe who move our stock around,” Anderson said. He was pleased that the results were concrete enough that they will change the way the fixtures are designed in Eddie Bauer stores. “We were looking for things we can financially afford to do, that we can apply to 431 stores.”

The company and its workers may eventually benefit by reducing workers’ compensation claims, injuries, and illnesses, Gleason said.

This real-world experience can’t be equaled in the classroom, Stewart said. “Having the opportunity to discover *real* ergonomic, safety, and health problems and the people who face the daily challenges of solving them is invaluable. Students experienced both the challenges and the feelings of pleasure in helping solve such problems.” ■

AG CENTER: CULTIVATING COLLABORATIONS

Q: What do you get when you put together investigators from four universities, two state agencies, and labor and management?

A: Synergy—as shared experiences develop into interventions to reduce farmworkers' pesticide exposure and illness.

Nearly one hundred participants discovered their common ground at a September conference in Coeur d'Alene, Idaho. The conference, *Cultivating Collaborations: Health and Safety in Western Agriculture*, was sponsored by the Pacific Northwest Agricultural Safety and Health Center (PNASH) and the University of California Agricultural Health and Safety Center at Davis.

Participants learned about research going on in other states or organizations, and laid the groundwork for future collaborative projects.

Here are some project ideas that were presented and are currently being developed.

- Using Washington state workers compensation data for agricultural injury studies
- Developing a unified exposure assessment of the risks of musculoskeletal disorders in the most labor-intensive farm work
- Creating a Web site to share new technologies and tools for conducting agricultural field studies
- Assessing the literacy level of farmworkers
- Identifying language resources that will aid education and prevention activities with farmworkers
- Developing training programs for farmworkers and physicians on pesticide signs and symptoms
- Making a video documentary of a community's efforts to reduce their pesticide exposure.

A variety of voices were heard. The opening session included Malcolm Butler, medical director of Columbia Valley Community Health; Lupe Gamboa, regional

director of the United Farm Workers Union for Washington and Oregon; and farm owners Brad and Karyl Baugh. "Each presented a story that placed our research into perspective—showing us farmers and farmworkers who are achievers but face challenges of isolation, language barriers, and financial hardships" said a conference participant.

Panel discussions ranged from educational programs and risk communication to respiratory disease and engineering solutions. The panels met by e-mail and phone before the conference to develop their project ideas. PNASH director Richard Fenske called the collaborations, particularly the one with the UC Davis Agricultural Center, "the major goals of this conference and those that we were able to meet with great success."

Matt Keifer of PNASH said, "The opportunity to exchange points of view with folks from Oregon, California and Washington state was both reinforcing—to see they face some of the same difficulties—and informative by giving us insight into some of the barriers that interfere with collaboration. The information we have now will help us overcome those barriers. I'm optimistic."

The PNASH Center intends to encourage the development of these new project ideas by offering funds for joint projects through a competitive request for proposals.

The UW will continue to cohost this annual conference with its partner at UC Davis. They have begun planning next year's conference in San Francisco, Sept. 8–9, 2003. ■



USDA photo by Ken Hammond

OUR ROLE IN A NEW RULE

The Pacific Northwest Agricultural Safety and Health Center (PNASH) is working with farm owners, farmworkers, and the state Department of Labor and Industries (L&I) to shape new rules for monitoring pesticide exposures



The Washington state Supreme Court has ordered L&I to initiate a rule for mandatory testing of agricultural workers who handle high-toxicity organophosphate (OP) or carbamate insecticides. The proposed monitoring system would periodically test cholinesterase of pesticide handlers. Cholinesterase is an enzyme needed for the proper functioning of the nervous system. Workers with low levels can be identified and reassigned to prevent further exposures to pesticides until their cholinesterase level rises to normal.

In February, the Court ruled on a lawsuit filed against L&I on behalf of Juan Rios, Juan Farias, and all agricultural pesticide handlers and farmworkers who mix, load, and apply pesticides. The Court found that L&I had violated the Washington Industrial Safety & Health Act of 1973 (WISHA) by denying the farmworkers' request for rulemaking on a mandatory cholinesterase monitoring system.

Physicians Patricia Boiko and Matt Keifer of PNASH serve on an L&I advisory group that includes labor advocacy groups, grower representatives, and governmental agencies.

"Patricia and Matt bring us information based on a sound scientific approach," said Gail Hughes, manager of L&I's Standards and Information Program. "It has been extremely useful to have them on the committee," she said.

They helped design a program, for example, to follow up with migrant workers who may have moved on after the initial testing. Keifer is providing technical advice

on costs, benefits, and scientific integrity, and Boiko is involved with employer and employee education. She also serves as liaison to physicians as chair of the Washington Academy of Family Physicians' Public Health and Scientific Affairs Commission.

Although many physicians are well versed in the acute toxicity of insecticides, she said, they might not have been trained in prevention strategies or record-keeping needs. The PNASH center envisions offering continuing education to rural health providers, perhaps using online courses.

Mike Gempler, executive director of the Washington Growers League, said employers want an effective system with a good cost/benefit analysis, scientific integrity of the testing (both in the field and in the lab), and employer and employee education.

If Washington adopts this rule, it will be the second state, after California, to adopt mandatory testing. L&I wants to learn from California's experience. For example, California only recently standardized its laboratory testing and Washington has the opportunity to standardize from the beginning. Standardization allows a test in one lab to be followed-up in another, which is important in agriculture, where workers frequently change employers. Keifer is interested in seeing a centralized authority set up to monitor laboratories and ensure the validity and reliability of their testing.

—Marcy Harrington contributed to the stories on these pages



ISEA/ISEE CONFERENCE

The department played a major role at August's joint meeting of the International Society of Exposure Analysis (ISEA) and the International Society for Environmental Epidemiology (ISEE), held at the University of British Columbia in Vancouver. **John Kissel** welcomed participants as the 2002-2003 president of ISEA. **Sally Liu** sits on the Society's board of councilors.

PAPERS

Rich Fenske, Alex Lu, Thomas Moate, Cynthia Curl, John Kissel. *Biological monitoring of children's pesticide exposure: A review of recent studies in Washington state*

Joellen Lewtas, Steven Myers, Naydene Maykut, **Chris Simpson, David Kalman, Sally Liu, Tim Larson.** *Attribution of particle exposure and risk to combustion source emissions based on personal PAH exposure and urinary metabolites*

Alex Lu, Rich Fenske. *A novel approach of pharmacokinetically based organophosphorous pesticide dose estimates using salivary data*

Alex Lu, Rich Fenske, John Kissel, Golan Kedan. *Dose estimates for organophosphorous pesticides exposures based on biological measurements for children living in agricultural and non-agricultural communities*

Therese Mar, William Wilson. *Attenuation of statistical relationships from PM community time-series epidemiology due to use of combined, rather than separate, indicators of exposure and mortality*

Lianne Sheppard, Chris Slaughter. *Exposures in ecologic time series studies: Impact on health effect estimates*

Christopher Simpson, Russell Dills, Michael Paulsen, Sally Liu, Dave Kalman. *Use of methoxyphenols in biological and environmental monitoring of woodsmoke exposure*

Christopher Simpson, Timothy Gould, Nicky Josephs, Tim Larson, Candis Claiborn, Dave Kalman, Sally Liu. *Exposure assessment of forest fire smoke in susceptible adults, using urinary biomarkers and real-time air monitoring data*

Eva Wong, Julia Gohlke, S. Farrow, Elaine Faustman. *Examination of children's health toxicity data with application to analysis of environmental health policy*

POSTERS

Ryan Allen, Tim Larson, Lance Wallace, Sally Liu. *The use of light scattering data to estimate the contribution of indoor-and outdoor-generated particles to indoor and personal air*

Candis Claiborn, Yanbo Pang, Dennis Finn, Lara Gundel, Tim Larson, **Sally Liu.** *The fine particulate organic carbon measurement artifact and its implications for exposure assessment*

Cynthia Curl, Rich Fenske, Kai Elgethun, Alex Lu. *Organophosphorous pesticide exposure to urban and suburban pre-school children with organic and conventional diets*

Cynthia Curl, Rich Fenske, Kai Elgethun, Alex Lu. *Organophosphorous pesticide exposure to urban and suburban pre-school children*

Kai Elgethun, Sarah Weppner, Alex Lu, Richard Fenske, John Kissel, Mike Yost. *Integration of GPS/GIS and heart rate monitoring in a sampling plan to characterize children's exposure to pesticide spray drift*

Jordan Firestone, Gary Franklin, W. T. Longstreth, Jr., Terri Smith-Weller, P. D. Swanson, Harvey Checkoway. *Residential Pesticide Exposures and Risk of Parkinson's Disease*

Bill Griffith, Cynthia Curl, Rich Fenske, Elaine Faustman. *Statistical methods for evaluating samples below detection limits*

Nancy Judd, Bill Griffith, Tim Takaro, Elaine Faustman. *Comparing optimized biomarkers and exposure control measures to reduce disease in beryllium exposed workers.*

John Kissel, Rene Showlund, Jeff Shirai, Gerald van Belle, J. Suggs, E. Cohen Hubal. *Investigation of transfer of fluorescent tracers from surfaces to skin*



John Kissel



Sally Liu

John Kissel, A. L. Bunge. *Dermal absorption from environmental matrices: Fundamental concepts revisited*

John Kissel, Cynthia Curl, Golan Kedan, Alex Lu, Rich Fenske. *Comparison of OP metabolite levels in single and multiple daily urine samples*

Tim Larson, **Sally Liu, Ryan Allen, Joellen Lewtas, Lance Wallace.** *Indoor-outdoor -personal relationships of selected fine particle trace elements in Seattle, WA*

Thomas Lewandowski, Julie Hoeft, Scott Bartell, Eva Wong, William Griffith, Elaine Faustman. *Biomarkers for child's health: Developing biologically based risk assessment models for linking exposure and health effects.*

Sally Liu, Dave Kalman, Joel Kaufman, Jane Koenig, Tim Larson, Lianne Sheppard, Joellen



CONTINUING EDUCATION

Lewtas, Lance Wallace. *Characterization of particulate matter and co-pollutants exposures for compromised and healthy elderly adults in Seattle, WA, 1999-2001*

Thomas Lumley, Jon Schildcrout, **Sally Liu, Lianne Sheppard**, Tim Larson. *Spatial and temporal variation in fine particulate concentrations in Seattle*

P. J. E. Quintana, R. J. Delfino, A. Rihal, **Sally Liu**. *Use of personal motion, light, and temperature loggers to verify continuous wearing of personal exposure meters*

Lianne Sheppard. *Air Pollution Study Designs: Linking Exposures with Outcomes*

J. Sullivan, N. Ishikawa, **Carol Trenga, Sally Liu, Jane Koenig**, W. Chandler, **Joel Kaufman**. *Effect of fine PM on measures of inflammation and thrombosis in an elderly population*

Tim Takaro, K. Ertell, K. Omri, Elaine Faustman. *Beryllium exposures at a nuclear weapons production facility: Applying the sentinel case approach to improve exposure assessment*

Carol Trenga, Chris Slaughter, B. Goldman, M. Budge, J. Sullivan, Joel Kaufman, Lianne Sheppard, Sally Liu, G. G. Shapiro, Jane Koenig. *Effect of fine particulate (PM_{2.5}) air pollution exposure on pulmonary function in pediatric subjects with asthma*

Sarah Weppner, Jeff Shirai, John Kissel. *Farm exposures to deposited arsenic and lead on Vashon/Maury Island, WA*

William Wilson, **Therese Mar**, Allan Marcus. *Would you believe a 20% excess risk of cardiovascular mortality for a 10µg/m³ increase in fine PM (for people 65-99 years old in Phoenix, AZ 1995-1997)? If so, what is special about Phoenix? If not, find the error!*

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

NW CENTER FOR OCCUPATIONAL HEALTH & SAFETY

- Jan 21-24 Annual Hazardous Waste Refreshers
Feb 13 Puget Sound Occupational and Environmental Medicine Grand Rounds
Feb 20 Inhalation Toxicology and Environmental Challenges
Feb 26 New Developments in Farm Health and Safety
Feb 28 Disaster Management: Planning, Response, and Recovery
Mar 11 Mold: The Next Asbestos?
Mar 13 Puget Sound Occupational and Environmental Medicine Grand Rounds
Mar 25-26 Clear Writing for Safety and Health Professionals

OSHA TRAINING INSTITUTE EDUCATIONAL CENTER

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

- Jan 13-16 OSHA 600: Collateral Duty for Other Federal Agencies
Jan 28-31 OSHA 311: Fall Arrest Systems
Feb 4-7 OSHA 521: OSHA Guide to Industrial Hygiene
Feb 10-13 OSHA 501: OSHA Trainer Course for General Industry
Feb 10-13 OSHA 204A: Machinery & Machine Guarding Standards (Portland)
Feb 19-21 OSHA 225: Principles of Ergonomics (Portland)
Feb 25-28 OSHA 301: Excavation, Trenching, & Soil Mechanics
Mar 11-13 OSHA 502: Construction Industry Trainer Update
Mar 11-14 OSHA 201A: Hazardous Materials (Portland)
Mar 17-20 OSHA 204A: Machine Guarding
Mar 18-21 OSHA 510: OSHA Standards for Construction (Boise)
Mar 25-27 OSHA 503: General Industry Trainer Update
Mar 31-Apr 3 OSHA 500: Trainer Course for Construction Industry (Portland)



Raja Atallah received the Ethnic Heritage Council's 2002 Spirit of Liberty Award at the July 4 naturalization ceremony at Seattle Center. The award is presented annually to a naturalized citizen who has made a significant contribution to the community while successfully maintaining his or her culture and heritage.

Harvey Checkoway has been appointed to the Board of Scientific Councilors of the NIEHS National Toxicology Program. He also chairs the Workers' Family Protection Task Force, established by Congress to prioritize an agenda for federally sponsored research on take-home exposures to workers' families.

The cover story in the July/August issue of the *AIHA*

Journal is by current and former departmental researchers: **Gerry Croteau**, **Mary Ellen Flanagan**, **Noah Seixas**, and **Steven Guffey**. **Rick Neitzel's** photograph of a timber worker is on the cover of the September/October issue. His article is about vibration and noise exposures in the forestry industry.



Noah Seixas

Foppe de Walle's consortium won a first-place environmental award from the European Union for its investigation of carbon dioxide as a replacement of perchloroethylene in the dry-cleaning of textiles.

Kai Elgethun, **Sarah Weppner**, and Dr. Vince Herbert from Washington State University went to eastern Washington to present preliminary aerial deposition study results to participating farm operators. Weppner presented pesticide exposure study results at a Natural Care seminar on Bainbridge Island.

Graduate students **Fabiola Estrada** and **NaTasha Johnson** were awarded \$800 scholarships from the Pacific Northwest Section of the American Industrial Hygiene Association at the recent Northwest Occupational Health Conference.



Fabiola Estrada

Alex Lu traveled to Chonburi, Thailand, in October to discuss a collaborative project between UW

and Burapha University on pesticide exposure in Thai farmers. **Kathy Hall**, **Scott MacKay**, **Sharon Morris**, and **Julie Schmitz** traveled

to Costa Rica in November to help the Central American Institute for Study on Toxic Substance (IRET) establish a continuing education program and Web site. Both trips were sponsored through the Fogarty International Scholars program.



NaTasha Johnson

Lourdes Medina from Costa Rica visited the Environmental Health Laboratory in September under the Fogarty Program. **Raja Atallah** taught her the operation of the atomic absorption spectrophotometer and **Lee Monteith** instructed her in the NIOSH method for sampling and evaluating airborne asbestos.

Rich Fenske presented a guest editorial in the May issue of *Environmental Health Perspectives*, "Incorporating Health and Ecologic Costs into Agricultural Production." The same issue included research by the Fenske laboratory on children's total exposure to organophosphate pesticides. The August issue published an article on a longitudinal biological monitoring of children's pesticide exposures by **Denise Koch** (formerly of the Fenske lab) and **Alex Lu**. Lu was quoted in the September issue about the use of agrochemicals in China's agricultural industry.

Kris Freeman presented a paper on Internet survey design at the 2002 Institute of Electrical and Electronics Engineers International Professional Communication Conference in Portland in September.

Samir Kelada, a PhD student in toxicology, presented a paper on DNA sequencing and Parkinson's disease at the Tenth International Amine Oxidase Workshop in Istanbul, Turkey, in August. Co-authors were **Paola Costa-Mallen**, **Hannah Viernes**, **Sengkeo Srinouanprachanh**, **Fred Farin**, **Lucio Costa**, and **Harvey Checkoway**.



Samir Kelada

Rick Gleason spoke on Internet resources at the Puget Sound Construction Safety Summit in June. He also spoke on



GRAND ROUNDS

construction safety and health hazards at the Associated Builders and Contractors' annual meeting in June and was guest speaker at the Puget Sound Chapter of the American Society of Safety Engineers monthly meeting in October, discussing occupational injuries and illnesses.

Peter Johnson was quoted in a *Seattle Times* June 17 story about an elementary school ergonomics program. The cable news network CNN picked up the story on June 28.

Tim Takaro is collaborating with investigators at the University of Montana on an NIEHS-funded project to identify susceptibility factors in asbestos related disease among the population of Libby, MT. Libby is a valley town with historic ambient air levels of asbestos well above the occupational standard.

Chuck Treser attended the National Environmental Health Association's annual conference in Minneapolis in June and received the 2002 Past Presidents' Award for longstanding contributions to NEHA and to the environmental health profession.



Chuck Treser

Several departmental investigators presented at the Northwest Occupational Health Conference in Pasco in October: **Mike Yost** at the short course on nonionizing radiation; affiliate faculty member **Brad Prezant** on indoor mold and fungus; **Lee Monteith** on diffusive passive samplers for organic vapors; **Rolf Hahne**, with James Nason of the Burke Museum, on pesticide contamination of Native American cultural and religious artifacts; **Matt Keifer** on cholinesterase testing in Washington state; **Tim Takaro** on latent diseases among Hanford workers; and **Joel Kaufman** on the health effects of diesel exhaust.

Graduate student **Amanda Zych** was quoted in front-page stories about the West Nile virus in the *Seattle Post-Intelligencer* and *Tacoma News-Tribune* in July.

The department is reaching out to the region's occupational health professionals by sponsoring the Puget Sound Occupational and Environmental Medicine Grand Rounds, together with the Northwest Association for Occupational and Environmental Medicine. The dinner meetings are held in various locations, generally on the second Thursday of the month.

Grand Rounds are designed to:

- Identify new developments in occupational and environmental medicine practice, including application of new scientific discoveries
- Identify and evaluate best practices in occupational and environmental medicine
- Discuss trends in occupational and environmental medicine practice
- Provide an opportunity for the region's occupational and environmental medicine practitioners to get together in a friendly environment.

The series started in October with a lively discussion of the controversial article, "The Rise and Fall of Occupational Medicine," by Joseph LaDou, MD, of the University of California, San Francisco. The November topic was "Asbestos, tobacco, and genes: Controversial co-factors in lung cancer" by Karl Kelsey, MD, MOH, of Harvard Medical School.

The December topic was "Evolving best practices in occupational medicine and the Pilot Center for Occupational Health and Education" with Gary Franklin, MD, MPH, medical director of the Washington state Department of Labor & Industries and research professor in the Department of Environmental Health, and Patricia Vincent, CRC, director of the Center for Occupational Health and Education at Valley Medical Center.

Future seminars are tentatively scheduled for February, March, April, and June. For more information, call 206-543-1069 or visit <http://depts.washington.edu/ehce/NWcenter/course/OMGR-02.html>.

