AGRICULTURAL INJURIES AND ILLNESSES

Despite many safety advances, agriculture consistently ranks as one of the most hazardous industries in the United States. The agricultural sector (farming, forestry, and fishing) has an annual fatality rate five times higher than the national workplace average, and illnesses and nonfatal injuries are also common. This issue of Environmental Health News focuses on the work of the Pacific Northwest Agricultural Safety and Health Center (PNASH), the agricultural safety research center for the Northwest.

PNASH'S ROLE IN FARM SAFETY

We've all peeled that little "Washington" sticker from our apples and pears. Washington state is the nation's leading producer of apples, pears, sweet cherries, red raspberries, and lesser-known crops such as hops. But while agriculture adds about \$5 billion a year to the state's economy, it also adds a measure of injury and illness.

The cost averages more than \$8 million a year in workers' compensation claims in just the tree fruit industry in central Washington—plus untold costs to the workers and their families—according to a study by Associate Professor Matt Keifer and graduate student Jon Hofmann.

Their work is part of the Pacific Northwest Agricultural Safety and Health Center (PNASH), housed at the University of Washington, which seeks to identify and reduce dangers to farming families and farmworkers in Washington, Idaho, Oregon, and Alaska.

The theme of the PNASH center is Promoting Safe and Sustainable Agricultural Workplaces and Communities. Our goal is to integrate the health and safety of workers and their families within the concept of sustainable agriculture and to develop a measurement scale for a sustainable agricultural workplace, said center Director Richard Fenske.

"In our view, the need for sustainable agricultural workplaces extends beyond the boundaries of the farm, and into the rural communities that are themselves the sustenance of the agricultural economy," he said. "Thus, our theme encompasses a broad public health view of sustainability and includes the next generation within these communities."

This winter, the center helped organize three activities linking safety with sustainability in the agricultural communities: NIOSH's agricultural sector NORA Town Hall in Seattle, the 15th Annual Western Migrant Stream Forum in Portland, and the Governor's Industrial Safety and Health Conference (Ag Safety Day) in Yakima.

The center is partly funded by NIOSH (the National Institute of Occupational Safety and Health). The federal agency is updating

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Jon Hofmann presents a research poster at the Western Migrant Stream Forum

its National Occupational Research Agenda (NORA) and held one of a dozen public meetings—the one focusing on agriculture—in Seattle (see page 5).

The PNASH center helped plan the Northwest Regional Primary Care Association's 15th annual Western Migrant Stream Forum and sponsored a research poster reception, facilitated by Keifer, co-director of the center. Presenters were Research Scientist Maria Tchong and students Elizabeth Hom, Diana Ceballos, Jon Hofmann, Julie Postma, and Claudio Osses-Henriquez.

PNASH researchers led several conference sessions: Jennifer Crowe, environmental and occupational health of Yakima valley farmworkers and their families; Kit Galvin, hands-on pesticide safety training using fluorescent tracers; Keifer, integrating occupational and environmental health in primary care; Helen Murphy and Catherine Karr, neurobehavioral risks of children's exposure to organophosphate pesticides; and Sinang Lee, outreach and health education lessons from Cambodia.

The center helped plan and present the second annual governor's agricultural safety and health conference, commonly called Ag Safety Day. This educational forum was developed in a partnership between state agencies, employer organizations and others, such as the PNASH center. Ag Safety Day reaches hundreds of employers and workers through a combination of both English and Spanish language sessions. Keifer led the Spanish session and Hofmann the English session on orchard injuries; Tchong led the Spanish session and Galvin the English session on home pesticide exposures; and Murphy talked about heat stress.

ORCHARD INJURIES

The goal of the PNASH center orchard injury project is to reduce occupational injuries among workers in the tree fruit industry. Hofmann and Keifer analyzed six years of workers' compensation claims for central Washington and interviewed 34 injured workers.

Orchard injuries most commonly involve ladders and tree branches or limbs. Keifer and Hofmann found that almost half of all compensable claims between 1996 and 2001 in that region were ladder-related. Ladder injuries tend to be the most severe and costly reported injuries, with \$21.5 million in compensation costs for the six-year period.

The interviews with workers, led by Mary Salazar of the UW Occupational Health Nursing Program, were designed to analyze how the injury occurred, why the worker thought it happened, and how the worker thought the injury might have been prevented.

The research team found that 25% of the injured workers had less than a year's experience in orchards; 44% of cases took place on the upper third of ladder; 47% of the cases resulted from ladder movement; 27% happened when the worker slipped; and the most common injuries were back injuries and ankle sprains. Several injuries occurred when a picker missed the last rung while coming down a ladder with a full bag of apples. The heavy bag can obscure vision and throw the worker off balance.

Keifer, Hofmann, and Salazar concluded that there is a strong and compelling need for interventions that can reduce the number of ladder-related injuries in orchards. They are working with growers and pickers to develop safer tools and work methods.

HOME PESTICIDE EXPOSURES

Farmworkers who are exposed to pesticides may take residues home to their families. PNASH is seeking practical methods to keep the residue in the orchard, and not transport it home on clothing or boots. Galvin and Tchong described these methods to producers and workers at Ag Safety Day.

Separating work and family laundry may not be practical, they said, because only one-third of farmworkers have washers and dryers in the home. Keeping a plastic box in the trunk of the car for work boots, and changing into sandals for the ride home, may be a more realistic preventive measure.

More than ten years of research by Fenske and his team of PNASH investigators has established that work-to-home

exposure pathways (agricultural chemicals moving from the workplace to home through the activities of farmworkers) can expose children, as measured through pesticide metabolites in their urine. Dust samples have been collected from households and vehicles to document the pathway. Community members from the Yakima valley have been trained to teach their neighbors safer practices for leaving the pesticide on the job.

HEAT STRESS

Last year a Yakima man died of heat stroke. This led the Washington state Department of Labor and Industries to propose a heat stress rule and led PNASH to collect first-hand stories for an educational campaign.

Murphy, the center's director of outreach, wants employers to understand the barriers that prevent workers from drinking enough water on the job. Field observers note that water is generally available on agricultural job sites, but usually in a centralized location. Workers consume their water all at once, as opposed to more gradually drinking at the liter-per-hour rate recommended in hot weather.

Good hydration is key to preventing heat stress and subsequent illness, and is an economic issue for the worker, Murphy said. It takes time and effort to go to the water station, and sometimes supervisors and co-workers don't support the breaks. Time away from the field can mean lost wages for workers paid by piece rate.

Murphy wants to find out more and educate workers about dehydration, as many people wait until they are thirsty, which can be too late. She has asked affected workers to contact her with their own stories about how they became ill. She can be reached at *hmurf@u.washington.edu* or 206-616-5906.

THE NEXT FIVE YEARS

On Feb. 15, PNASH, under Principal Investigator Fenske, submitted its competitive renewal application for continuation of the center for 2006–2011. Ten projects were proposed



Ladders are the most common cause of orchard injuries in Washington state



spanning research, prevention, and education. Principal investigators include: Janice Camp, Fenske, Peter Johnson, Karr, Keifer, John Scott Meschke, Murphy, Mary Salazar, Christopher Simpson, and Mike Yost from the University of Washington; Elizabeth Cartwright, Idaho State University; and Kent Anger and Diane Rohlman, Oregon Health Sciences University.

FOR FURTHER READING

Curl CL, Fenske RA, Kissel JC, Shirai JH, Moate TF, Griffith W, Coronado G, Thompson B. Evaluation of take-home organophosphorus pesticide exposure among agricultural workers and their children. *Environ Health Perspect* 2002 Dec;110(12):A787–792.

PNASH information on heat stress

http://depts.washington.edu/pnash/heatsress.php

Salazar MK, Keifer M, Negrete M, Estrada F, Snyder K. Occupational risk among orchard workers: A descriptive study. *Fam Community Health* 2005 Jul–Sep;28(3): 239–252.

WISHA rule development on heat stress

http://www.lni.wa.gov/Safety/Rules/WhatsNew/Proposed/
Default.thm?RuleID=402

The PNASH contingent at Ag Safety Day (l to r):
Jon Hofmann, Marcy Harrington, Matt Keifer, Maria
Negrete, Helen Murphy, Richard Fenske, Maria Tchong,
Kit Galvin, Yasmin Barrios

SERVING AG COMMUNITY NEEDS

The Pacific Northwest Agricultural Safety and Health (PNASH) center has found that two important audiences health care providers and farmworkers—can be hard to reach, and has built special programs to engage them.

HEALTH CARE PROVIDERS

Rural health care workers are overworked, underfinanced, and scarce. PNASH brings training to rural providers, helps them network with one another, and reaches out to promotoras (community health workers) who are sometimes overlooked by educational programs.

Past efforts have included developing an audiotaped diagnostic tool to assess farmworker mental health and training clinicians to implement the new Washington state cholinesterase rule.

More recent efforts include working with the promotora training program at the Columbia Valley Clinic to develop educational and translational materials, and responding to a farmworker death during last summer's heat wave by sending providers the latest findings about how to lower body core temperature.

The center continues to work with clinics involved in the Washington state pesticide-monitoring program. It provides cholinesterase testing kits and trains clinicians to perform their own analysis. A clinic-based system can provide quicker results than a centralized state system, thus allowing earlier alerts to employers and workers when a pesticide exposure problem arises.

FARMWORKERS

To better understand and meet the needs of farmworker communities, PNASH, under Dr. Matthew Keifer, developed two large community-based participatory research projects:

El Proyecto Bienestar (The Well Being Project) focuses on the occupational and environmental health issues of Hispanic agricultural workers in Yakima. Partners include the University of Washington, the Yakima Valley Farm Worker's Clinic, Radio KDNA, and Heritage University. The goal is to study environmental and occupational risks and develop an issuesdriven action plan that meets priorities set by the community.

Idaho Partnership for Hispanic Health, newly formed in collaboration with the Idaho Mountain States Group, will address health disparities among Idaho Hispanics. PNASH is advising on community-based participatory research methods and will provide research and health care expertise to help

communities address their safety and health interests.

The center is also responding to employers' interest in identifying the root causes of workers' pesticide exposure with two activities. In the clinic, PNASH introduced a computerbased exposure history questionnaire responsive to the workers' language and literacy level. At the worksite, PNASH is using evaluation measures of fluorescent tracers and urine metabolites to pinpoint pesticide applicators' sources of exposure.

ALWAYS A HAZARDOUS FIELD



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Bernardino Ramazzini, considered the founder of occupational medicine, described the working conditions of farmers in 1713: "While they work in the fields they are exposed to inclemency of the weather; they are buffeted now by the south wind now by the north, soaked with rain and night dews, scorched by the summer sun; however robust they may be, of however hardy a stock, they cannot support such violent changes."

Nearly three centuries later, federal and state agencies are recognizing the hazards caused by extreme heat and cold and the need for "work hardening," or time for the body to adjust.

FOR FURTHER READING

Ramazzini, B. Diseases of Workers: De Morbis Artificum. New York Academy of Medicine, History of Medicine Series, No. 23. Hafner Publishing Co., New York, 1964.

NORA TOWN HALL

On Jan. 17, Professors Richard Fenske and Noah Seixas were official hosts for a National Institute for Occupational Safety and Health (NIOSH) Town Hall meeting in Seattle, with a focus on the agricultural sector. More than 120 people attended and 51 speakers presented their ideas for research. Speakers came from as far as North Carolina, Kentucky, Ohio, and Texas.

NIOSH is holding a dozen Town Hall events across the nation to gather testimony for the second decade of the National Occupational Research Agenda (NORA). The agenda will be further developed at a symposium April 18–20 in Washington, DC. The agency is accepting comments at http://www2a.cdc.gov/niosh-comments/nora-comments/input.asp.

"Just as a previous town hall meeting in Seattle 10 years ago was instrumental in the original development of NORA, this year's meeting provided valuable input for shaping the next decade," said NIOSH Director John Howard. "We appreciate the help of our local partners in planning and hosting the meeting, and we thank all of the participants and attendees for their support, insights and recommendations."

The Pacific Northwest Agricultural Safety and Health center and the Northwest Center for Occupational Safety and Health, both housed in our department, helped plan and facilitate the meeting. A morning session, facilitated by Seixas, focused on regional occupational safety and health issues in general industry, while the afternoon session was specific to agriculture (farming, fishing, and forestry) and had a national scope.

Seixas identified several themes from the morning session: continued support for basic research; research into the needs of a changing workforce, which includes more short-term, temporary jobs and more older workers and immigrant labor; emerging research issues such as nanotechnologies, novel chemicals, and chemical mixtures; international health and safety issues; and research on health and safety training effectiveness, including organizational change.

In the afternoon session, Shari Kuther of the Progressive Agriculture Foundation, Sharon Hughes of the National Council of Agricultural Employers, Deliana Garcia of the Migrant Clinicians Network, and Mary Miller of the Washington Department of Labor and Industries discussed farm safety for youth and teens, while Robert Petrea of the University of Illinois talked about the problems of elderly farmers.







Catherine Thomsen of Oregon Health Services urges research into the problems of young workers, Max Lum of NIOSH takes notes, and Matt Keifer and Rich Fenske of DEOHS discuss the day's agenda

Four speakers urged research into pesticide exposures among farmworkers, while Mike Gempler of the Washington Growers League said too much emphasis was placed on pesticides, compared with hazards that affect more workers. "In addition to relevant basic research, our industry supports research that results in practical solutions, that brings the research to the field, if you will, and implements it," he said.

John Garland, a professor and timber harvesting extension specialist at Oregon State University, is concerned about changes in the workforce. Loggers are aging faster than men in other occupations, and increases in the Hispanic workforce have created what he called "interesting" complications in language.

Jerry Dzugan, executive director of the Alaskan Marine Safety Education Association, was concerned that injuries are prevalent in fishing, but there isn't a unified way of collecting statistics. He remembers a safety drill with six fishermen. "As I was debriefing the drill with them, I realized there wasn't a complete set of fingers on that boat. You know, there should have been 60 fingers; there were only about 48."

Looking back at the meeting, Fenske said, "This type of stakeholder process is critical to the creation of a new research agenda that is truly responsive to national needs."

NGAGING MIDDLE SCHOOL STUDENTS

Do you remember middle school? Social studies class meant writing reports about people long ago and far away. Math class meant story problems to figure out when the train leaving New York City would meet the train leaving Chicago. None of it had much to do with your life.

Now, imagine that all of your learning was integrated, and instead of calculating the rate the train traveled, you calculated increases in the asthma rate for your community.

SOUND INTRIGUING?

That's what students in 13 Washington state school districts—and four in New Mexico—are doing through the Integrated Environmental Health Middle School Project (IEHMSP). The program, based at the University of Washington Center for Ecogenetics and Environmental Health, engages students in community-based projects that empower them to make informed, responsible choices about their health and environment.

By studying environmental health issues across the disciplines of language arts, social studies, science



Students at Mount Baker Middle School in Mount Vernon map health data in a mock pesticide spill scenario



Eighth-grader Emily Lorente participates in a mock town hall meeting based on a bioterrorism scenario

and math, students develop competency in identifying problems, assembling data, arriving at solutions, and communicating findings, said Katie Frevert, manager of the project.

Students research environmental health topics in their communities and address issues such as environmental justice, human health, and individual rights. Teachers receive training, curriculum materials, access to local resources, and continuing support.

At one school, students decided to count the cigarette butts that littered the school grounds. Once they reached ten thousand, an antismoking campaign was born.

One girl in Eastern Washington tested the lead in candies imported from Mexico. Her study blossomed into a science fair project, speaking engagements in elementary schools, and national recognition.

Another group of students petitioned their school board to consider using biodiesel fuel in school buses, presenting concerns about asthma in young riders. Not only did they make a presentation to their school board, but they met with Congressman Jay Inslee, said Lyle Rudensey, resource teacher with the project.

WINTER 2006 NEWS ENVIRONMENTAL HEALTH

THROUGH ENVIRONMENTAL HEALTH

These IEHMSP curricula are aligned with Washington state's Essential Academic Learning Requirements in four subject areas. "Additionally, the science WASL (Washington Assessment of Student Learning) is scenario-based, and through this type of problem-based learning about environmental health issues, students learn to use critical thinking skills and gain experience with practical applications of science," Frevert said.

Middle school students (grades 6-8) who have been through the environmental health program have an advantage over others when, in 2008, the state starts requiring seniors to do a culminating project as a graduation requirement. "Districts see this project as the 'training wheels' that students can acquire in the seventh or eighth grade," she said.

The office of the Superintendent of Public Instruction has become interested in the Quicksilver Question Web Module, HEART (Health & Environment Activities Research Tool), and Environmental Health Fact Files: Lead and Asthma, Frevert said. These IEHMSP curriculum materials will be published and available nationally.

The IEHMSP curricula can also help prepare students for Washington state's new Social Studies Classroom Based Assessments (CBAs), Frevert said.

The Quicksilver Question learning activity introduces students to the connections between historic gold mining, mercury contamination, fish consumption and human health.

The middle school project is in year six of the seven-year grant from the National Institute of Environmental Health Sciences (NIEHS). Frevert and Rudensey are looking for ways to continue the project beyond the NIEHS funding. They received funding in the past from the Seattle Biotech Legacy Foundation, a philanthropic, science-based foundation with roots in the Seattle biotech community, whose mission is to continue to expand our understanding of the complex relationships between the environment and human health.

FOR MORE INFORMATION

Integrated Environmental Health Middle School Project http://www.iehms.com Quicksilver Question Web Module http://www.iehms.com/online/webModules/ qsIntro.php













Middle school students tour DEOHS laboratories in the Roosevelt building

These icons direct students to core concepts of environmental health









CONTINUING EDUCATION & EVENTS

o 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 otherwise noted.

PACIFIC NORTHWEST OSHA EDUCATION CENTER

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

Mar 27-30	OSHA 511: Standards for General Industry (Portland)
Apr 3-5	OSHA 2264: Permit-Required Confined Space Entry
Apr 3-6	OSHA 500: Trainer Course for Construction Industry (Portland)
Apr 10-13	OSHA 3110: Fall Arrest Systems (Richland)
Apr 10-13	OSHA 6000: Collateral Duty for Other Federal Agencies
Apr 17-20	OSHA 3010: Excavation, Trenching, and Soil Mechanics
Apr 17-20	OSHA 501: Trainer Course for General Industry (Portland)
Apr 24-26	OSHA 2225: Respiratory Protection (Portland)
May 1-4	OSHA 510: Standards for Construction Industry
May 8-10	OSHA 3010: Excavation, Trenching, and Soil Mechanics (<i>Anchorage</i>)
May 15-18	OSHA 3095: Electrical Standards (Portland)
May 15-18	OSHA 511: Standards for General Industry
May 22-25	OSHA 500: Trainer Course for Construction Industry
May 22-25	OSHA 521: OSHA Guide to Industrial Hygiene (Portland)
May 22-25	OSHA 5600: Disaster Site Worker Train-the-Trainer (Richland)
Jun 5-7	OSHA 2250: Principles of Ergonomics (Portland)
Jun 5-8	OSHA 3110: Fall Arrest Systems
Jun 12-14	OSHA 2264: Permit-Required Confined Space Entry (Richland)
Jun 12-15	OSHA 501: Trainer Course for General Industry
Jun 12-15	OSHA 521: Guide to Industrial Hygiene (Boise)
Jun 26-29	OSHA 3010: Excavation, Trenching, and Soil

Mechanics (Portland)

NORTHWEST CENTER FOR OCCUPATIONAL HEALTH & SAFFTY

Apr 18-20	Hazardous Materials Incidents: Improving Interagency Response
Apr 20	Puget Sound Occupational and Environmental Medicine Grand Rounds
May 25	Puget Sound Occupational and Environmental Medicine Grand Rounds
May 31	Applied Office Ergonomics (Anchorage)

NEW GENERATION RESPONDER

Before September 11, 2001, you could expect trained specialists to respond to hazardous material (hazmat) incidents. Since 9/11 the expectation is that every citizen is responsible for being a first responder, rather than wait for a specialized hazmat team.

Our Continuing Education program presented three days of classes in February to teach citizens—now called "new generation responders"—to address hazardous material incidents at home, in their community, or at work. This series of courses—on hazard awareness, basic instruments, and safety and sampling awareness—taught them to assess, assist, participate, lead, and evaluate a response to an incident in an "all-hazards approach."

Course Director Rick Gleason said this approach covered typical hazmat incidents and natural disasters, as well as terrorist attacks involving chemical, biological, and radiological agents—even things like suspicious packages on mass transit.

Students included public health personnel, maintenance crews, law enforcement officers, firefighters, emergency management and planning personnel, university public safety staff and students, hospital employees, public works personnel, and corporate security managers.

CAREER DAY

PERSPECTIVES IN PUBLIC HEALTH ALUMNI RECEPTION

Hosted by: School of Public Health and

Community Medicine, UW

Location: Husky Union Building (East Ballroom), Seattle Campus

Date & Time: April 26, 2006, 6-8 pm

Registration Fee: none

Questions: Karen Hanson

klhanson@u.washington.edu, 206-685-6699

Please join SPHCM alumni, faculty, and friends for an evening of celebration and networking. This year's event will honor the 2006 Distinguished Alumni Award recipient. The evening will include an update on the School from Dean Patricia Wahl. Wine, appetizers, coffee, and dessert will be served. Admission is free; please register by April 17 at *UWalum.com* or by calling 206-543-0540.



Students in the New Generation Responder course use a hazardous material identification kit to identify an unknown substance

The 2006 Career Day, on Feb. 17, gave students an opportunity to learn about careers in industry, consulting, governmental agencies and advocacy groups and to build relationships. This year's event was held for the first time in the Portage Bay Room (the old cafeteria) of the South Campus Center.

The session on consulting careers was facilitated by Senior Lecturer Janice Camp and featured Alma Cardenas, toxicologist at Integral Consulting; Tad Deshler, partner in Windward Environmental; Bruce Kelman, president of Veritox; and Venetia Runnion, director of occupational health and safety, Bureau Veritas.

The biotechnology session was facilitated by Research Professor James Woods and featured Brian Baker, director of Preclinical Services, SNBL; Dolores Diaz, senior scientist at Cerep, Inc.; Carmel Lynch, director of pharmacology and toxicology at Seattle Genetics; and Rafael Ponce, associate director, toxicology and pathology, at Zymogenetics.

The session on careers in government agencies was facilitated by Chair Dave Kalman and featured Marc Stifelman, toxicologist with the US Environmental Protection Agency, Region 10, Risk Evaluation Unit; Karen Larson, Regional Representative, Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention; Rick Miklich, food and facilities section manager, Environmental Health Division, Public Health–Seattle & King County; Denise LaFlamme, toxicologist, Washington state Department of Health, Office of Environmental Health Assessments; and Mark Soltow, industrial hygiene consultation supervisor, Washington state Department of Labor and Industries.

The session on non-governmental organizations was facilitated by Associate Professor Matt Keifer and featured Carl Osaki, principal investigator, Regional Academic Environmental Public Health Center, Northwest Center for Public Health Practice; Steve Gilbert, director, Institute of Neurotoxicology and Neurological Disorders; Running-Grass, environmental justice specialist, US Environmental Protection Agency, Region 10; Yalonda Sinde, director, Community Coalition for Environmental Justice; Carol Dansereau, director, Farm Worker Pesticide Project; Sophie Newland and Yancy Seamans from PATH (Program for Appropriate Technology in Health); and Margaret Shield, coordinator, Toxic-Free Legacy Coalition.

PEOPLE & PLACES



Yolanda Sanchez



Phillip Buff



Daniel Luchtel

Second-year Master's student Yolanda Sanchez received the School of Public Health's annual Martin Luther King Award in January. The award cited her passion for environmental justice and her commitment to increasing the number of students from underrepresented backgrounds in the field of Environmental Health. Last summer she worked with the department's webmaster to develop an Environmental Justice site, http://depts.washington.edu/envhlth/info/env_justice. She also recruited for the department at the 2005 Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) conference. Yolanda serves as a graduate diversity recruiter for the UW Graduate School, coordinated the summer ConneX visits for high school and college students from the Yakima Valley to learn about Health Sciences at UW, and serves on the School of Public Health Diversity Taskforce.

Professor Noah Seixas was invited to the National Academy of Sciences to present stakeholder input to the NAS committee reviewing the effectiveness of NIOSH's hearing-loss prevention program. Seixas received a five-year grant to study noise and hearing loss among construction apprentices. His study was renewed to continue following the same group of workers—now mostly working journeymen in their respective trades—for an additional five years. Dr. Seixas also has a NIOSH grant to study the effectiveness of a training intervention on use of hearing protection devices. Clinical Professor Michael Silverstein serves on the NAS committee, which is interested in industry collaborations and "research-to-practice" projects.

Professor **Dan Luchtel** has been selected as chairelect of the Faculty Senate, the legislative body of the University faculty. He was previously chair of the faculty council on faculty affairs.

Roosevelt building receptionist **Phillip Buff** was named 2005 Outstanding Combined Fund Drive Coordinator by the UW. University faculty, staff,

and students contributed a total of \$1.6 million to the CFD.

Professor Terry Kavanagh was awarded equipment funds from the School of Public Health and Community Medicine to purchase a FG Xcyte Laser system as part of the Center for Ecogenetics and Environmental Health analytical cytometry facility core. The core's specialized tools help assess the effects of toxic chemicals on cell physiology, structure, and function.

Professor Elaine Faustman was elected as a Councilor for the Society for Risk Analysis. The Council serves as a board of directors for this international organization. She also was awarded an EPA Star Grant, which will allow expansion of research projects for the Center for Child Environmental Health Risks Research.

Assistant Professor Chris Simpson is the principal investigator on a \$50,000 pilot project that may expand into a larger grant. The pilot grant is called "Characterization of diet- and exercise-dependent metabolic phenotypes: Evaluating response to interventions." It is part of a National Cancer Research center grant on transdisciplinary research in exercise and cancer, awarded to Fred Hutchinson Cancer Research Center.

Chang-Fu Wu, a 2002 graduate of our PhD program and an affiliate assistant professor in our department, passed his Certified Industrial Hygienist (CIH) exam. Wu teaches at National Taiwan University. He said our Industrial Hygiene program prepared him well for this exam.

Senior Lecturer Chuck Treser became chair of the American Public Health Association (APHA) Education Board in December. The Education Board is charged with maintaining and enhancing professional knowledge, increasing technical proficiencies, and enabling members to promote and protect environmental and community health. His term is three years.

Professor **Dave Eaton** has been chosen to provide the Distinguished Faculty Lecture from our department this year. The lecture date, time, and location are still to be announced.

About 130 researchers from our department and the School of Occupational and Environmental Hygiene at the University of British Columbia attended the 18th annual Occupational and Environmental Health Conference at Semiahmoo in January. UW speakers were Sverre Vedal, Mike Paulsen, Alon Peretz, Kristin Miller, Chris Carlsten, Diana Ceballos, Dave Kalman, Mike Yost, Elaine Faustman, Ming Tsai, Matt Keifer, and Janet Blackstone. Vedal helped organize this year's conference, which drew a record number of students.

Steve Cant, a 1973 graduate of our master's program and an affiliate assistant professor in our department, has been named director of the Workplace Industrial Safety and Health division of the Washington Department of Labor and Industries.

Professor Rich Fenske went to Stockholm in December to serve as the "opponent" (chief outside examiner) for the dissertation defense of Aurora Aragon. Dr. Aragon is our department's main collaborator at the National Autonomous University of Nicaragua (UNAN) through the International Scholars in Occupational and Environmental Health program.

Lecturer Rick Gleason provided a presentation to 50 construction workers for Tri State Construction's annual safety training day on Jan. 2 in Bellevue. His topic was: "Construction Safety and Health in Washington State: Lessons Learned from 2005." Gleason also gave the keynote talk to 150 workers at the Avista Electrical Power Utilities Annual Conference in Spokane on Jan. 17. The topic was "Motivating Workers in Safety and Health in the Electrical Power Industry."

Research Scientist Rick Neitzel was featured on a KOMO 4 News piece on hearing loss caused by iPods

and certain types of headphones on Wednesday night, Feb 8.

The new year brought major changes to the continuing education staff. Director **Scott MacKay** returned to California State Dominguez Hills. **Kate Stewart**, a DEOHS lecturer, has joined CE as interim liaison to the faculty and professional community. Kate will help plan, guide the content of, and market CE courses and lectures until a permanent faculty outreach position is filled. **Leslie Fleming**, coordinator for the Pacific Northwest OSHA Education Center, left at the end of January and has been replaced by **Cynthia Baker**.

The Field Research and Consultation Group is also in transition, as research ergonomists **Steve Russell** and **Lori Winnemuller** have gone to work with our partner, Boeing. Hiring is underway for a new industrial hygienist.



Rich Fenske serving as chief outside examiner at the dissertation defense of Aurora Aragon in Stockholm, Sweden

STUDENT RESEARCH DAY

Each spring for more than 20 years, the Department of Environmental and Occupational Health Sciences has hosted Student Research Day, an event celebrating the research of graduating master's students.

This year's event will take place on Thursday, May 25, and will include projects representing all of our academic program areas.

This is an opportunity to see some exciting research projects, learn more about activities within the department, recruit new employees, or make contact with faculty.

The seminar will be from 12:30 to 1:20 pm and the poster session from 1:30 to 3 pm in Room 316 of the South Campus Center. Refreshments will be served and there will be ample opportunity to meet students and discuss their work.

Please join us for Student Research Day and pass this information on to your colleagues. If you have any questions, please call the Graduate Program Office at 206-543-3199 or e-mail ehgrad@u.washington.edu.

You can view last year's research at http://depts.washington.edu/envhlth/news/researchday05.html.

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