

Center for Research on Occupational and Environmental Toxicology

A lone wind turbine, emblem of a resurgent alternative energy industry, shrinks in comparison to Oregon's natural scenic beauty. Photo by Dan Austin.



NEWSLETTER

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Oregon FACE Program Hosts National Meeting

To most people, the idea of researching fatal workplace incidents might seem macabre. Such research is important, though, to identify risk factors and help develop prevention strategies that can minimize hazards and to save the lives of workers in similar situations.

This is what the Fatality Assessment and Control Evaluation (FACE) program, sponsored by the National Institute for Occupational Safety and Health (NIOSH), is designed to do. Currently, nine state-based FACE programs are funded by NIOSH, including the Oregon FACE Program housed in CROET. NIOSH FACE conducts investigations of traumatic occupational fatalities over a broad region around its home office in West Virginia, and publishes its own as well as state investigation reports on its website, along with topical publications that focus on particular areas of concern.

OR-FACE, directed by Gary Rischitelli, MD, JD, MPH, had the honor of hosting this year's Annual National FACE Program meeting, held May 12-15 in the OHSU Center for Health and Healing. The meeting brought together



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federal and state public health workers and academic researchers from across the country. Representatives of the state FACE programs, including Dr. Rischitelli, presented updates on their activities. The participants eagerly engaged with their colleagues to discuss emerging regional statistical trends and factors that affect worker fatalities, shared information about new technologies, and ideas about outreach programs to disseminate information to workers, employers, stakeholders, and safety professionals. Many of the participants were accident investigators, others more involved in epidemiology, or outreach, or a combination of all three.

Terry Hammond, MPH, OR-FACE Research Associate, was impressed by how differently the various state programs are organized. “Most work directly for the state and may be integrated into broader public health programs, others work apart in a separate niche, or even entirely alone, relying on phone contact with colleagues for necessary support.” Most impressive for Terry were the examples of successful outreach initiatives in other states. “I still find the California hazard alerts really well done, and liked the new simplified format to engage the reader.” He also noted how the Iowa program uses news releases to circulate information about workplace fatalities through the media; the Washington FACE program has developed significant network relations; and other states follow up after investigations to develop targeted relationships with the specific businesses that were affected. “These are all good models to emulate.”

Crane safety was the main theme at this conference. Abundant information was delivered on the topic, starting with a presentation by Dave Wooley and Ron Haverkost of Oregon OSHA, and Brian Silbernagel

of Morrow Cranes, which focused on critical factors in safe tower crane operations, including crane site selection, erection, inspection, maintenance, training, and communication. On the second day of the conference, a field trip was scheduled at Hoffman Construction’s tower crane construction site at Portland’s South Waterfront area, located “at the bottom of the hill”. Tony Howard, safety manager for Hoffman Construction, provided attendees with a detailed description of the planning, inspection, and operation processes involved in setting up and using the giant tower crane onsite. Attendees were also given a live demonstration of the communication techniques used by the crane operator and spotter. As the FACE folks observed, the crane operator – so high up he cannot see the target – worked with the spotter to guide the crane hook to a pinpoint landing. Best of all, the crane operator descended at the end of his shift just as the session was ending, and answered questions and provided a direct perspective on crane operations.

Mr. Hammond observed that it was a great experience to mix with other FACE program personnel. He also noted that the success of this meeting would not have been possible without the hard work of Erika Zoller, who did all the event planning and coordination, and Dr. Rischitelli, who organized the presentations and field trip. Despite various individual skill sets and organizational settings, everyone had the same critical interests in surveillance and data gathering, assessment and outreach strategies, which all contribute to the goal of preventing workplace fatalities.

For more information about the NIOSH FACE program, visit <http://www.cdc.gov/niosh/face>. You can also visit the OR-FACE website at <http://www.ohsu.edu/croet/face>.



OR-FACE Director, Dr. Gary Rischitelli, addresses attendees during the 2009 National FACE Conference.



Hoffman Construction's tower crane construction site at Portland's South Waterfront, where attendees were given an excellent demonstration of crane operations.

CROET Research Associate Reaches Out to Portland's Refugees

Oregon, and particularly Portland, is home to a substantial refugee community comprised of people from diverse African, Asian, South American and European cultures. Refugees often face an extraordinarily rapid acculturation to new ways, including those relating to health and hygiene. Daily life practices that may be quite normal in the home country might seem unhealthful or may actually be inappropriate in our culture, which can cause refugees problems in finding and retaining housing and jobs. CROET's Valerie Palmer, who serves as President of Africa House, part of the Immigrant and Refugee Community Organization (IRCO), saw this problem as an opportunity to help refugees better acclimate to Western culture and the Oregon workplace.

Thus was born the Global Health Center (GHC)-Africa House Community Health and Educational Exchange. OHSU's GHC, temporarily housed in CROET's Toxicology Information Center, was the perfect partner for this endeavor, utilizing the energy and enthusiasm of OHSU's diverse student population in a two-way community exchange of information. OHSU health professional students are given the opportunity to learn about the ways and needs of, for example, African refugees while African refugees are helped to adapt to American life.



Valerie Palmer

The program initially brought approximately 30 dentistry, medicine, nursing and pharmacy students, faculty from the four schools, and one student from OSU together with an estimated 50 Burundian adult and child clients. Clients were introduced to a team of students who learned about health problems and traditional treatments, took vitals, and performed oral and eye exams. The students assessed the needs of the client and referred any health issues to a discipline-appropriate faculty member, who decided whether to refer for further help. Valerie Palmer forwarded these referrals to Africa House coordinator Djimet Dogo, who then followed up with community leaders to ensure the client's needs were addressed.

On this initial session, students were met with significant obstacles and achieved considerable successes. Obstacles included a crowded facility, a shortage of translators, and waiting children whose patience was tested. While the students may have viewed these as shortcomings, they actually represented strengths because the students were given a taste of the realities encountered in health clinics in low-income countries. Considerable success was evident from the reports of both the refugees and the students — students found satisfaction not only from the experience of working with African people but also from interacting with their colleagues across disciplines.

Since the initiation of this program, 186 clients have been seen and 72 referred for various ailments. In addition to the Burundian and Somali Bantu clients, Kateri Park and Esperanza communities, comprised of Burmese, Somali Bantu, Hispanic, Sudanese, Kenyan and Black and White American people, were also seen. The majority of the latter clients live in two low-income housing developments that are connected with Catholic Charities, coordinated by Elisabeth Gern.

So far, approximately 82 students have participated in the program: 30 from the school of pharmacy, 28 from nursing, 15 from the school of medicine and 10 from the school of dentistry. Faculty preceptors included Amy Marr MD, Paula Amato MD, Jessica Gregg MD, PhD and Jay Kravitz MD, MPH from the school of medicine, Michael Plunkett DDS, MPH from the school of dentistry, Isabelle Soule RN, MN from the school of nursing and 12 faculty from the school of pharmacy under the direction of Matt Ito PharmD, FCCP, BCPS.

Jolene: Brainchild of Former CROET Summer Intern a Big Hit Worldwide

When Genna Martin first conceived the idea of measuring sound levels emanating from teens' iPod ear buds, few could have imagined that her invention would become so popular — and useful as a research and teaching tool. Genna, a recent graduate from Boston University majoring in photojournalism, created Jolene during a 2006 CROET summer research fellowship under the mentorship of William Lambert, PhD.

Genna constructed Jolene using a fashion mannequin and a sound level meter wired to a silicon ear. To operate Jolene, the user is first asked to adjust the sound of his/her personal stereo system to the level of normal use, then the headphones or ear buds are placed on Jolene's "ears" to measure the sound pressure, in decibels, that the user's ears are experiencing.



Genna Martin poses with the original Jolene

During the summer of 2007, Jolene was put to the test during the Body World exhibit at OMSI. Genna stationed Jolene in an area of the museum just outside the main exhibit, where hundreds of teens could learn the actual sound levels they are subjecting their ears to. Genna's research revealed that 16% of the 14 to 18 year olds who participated listened daily to their personal stereo systems at levels higher than what is determined to be safe by NIOSH.

Jolene is now part of the education and research projects of Dangerous Decibels, a public health partnership of Oregon Museum of Science and Industry (OMSI) and OHSU's Oregon Hearing Research Center dedicated to the prevention of noise-induced hear-

ing loss. She makes appearances at schools and universities, scientific meetings, health fairs, and many other public events. Genna has coauthored and/or presented six publications and presentations about Jolene at national and international conferences.

Jolene became so popular that the National Hearing Conservation Association provided Genna with a grant to produce the Jolene Cookbook, a detailed instruction manual on how to make your own Jolene. The Jolene Cookbook is available on the Dangerous Decibels website and, as of this writing, has been downloaded by individuals in 47 US States and 14 different countries. Jolene now has siblings everywhere; all fighting against noise induced hearing loss and tinnitus. You can see many of them in the Jolene Family Album on the Dangerous Decibels website — and, as if this level of fame weren't enough, you can also see Jolene on her personal Facebook page.

Jolene's sibling, Dezi Bell, created by SAIF Corporation, will be joining members of the Oregon Young Workers Safety and Health Coalition during Public Health Week at OMSI from August 10-14, 2009. Come test your own (or child's) ipod, learn about young worker health and safety and visit with other groups on public health topics.



Jolene at Niagara Falls

For more information about Jolene, visit the Dangerous Decibels website at: <http://www.dangerousdecibels.org> and go to the section on Outreach and Educator Resources. Visit the Oregon Young Worker Health and Safety Coalition website at: www.oregonyoungworkers.org for more information.

CROET Postdoctoral Fellow Awarded Travel and Research Grants

Jodi L. Johnson, PhD, Postdoctoral Fellow in the laboratories of Amanda McCullough PhD and Stephen Lloyd PhD, has been awarded two new grants. The first, a 2009 Albert M. Kligman Travel Fellowship grant, provided funds to attend the Annual Meeting of the Society for Investigative Dermatology (SID) held this year in Montreal, Quebec, Canada. The grant covered the cost of meeting registration and 2 room nights at the Montreal Delta Centre-Ville Hotel. Dr. Johnson was one of 26 (out of 92) applicants from 14 countries to receive the award.



The second grant awarded to Dr. Johnson is a \$20,000 Dermatology Foundation Research Grant for her project, titled "The Impact of DNA Repair by Chlorella Virus Pyrimidine Dimer Glycosylase in UVB-Exposed Skin Cells". Dr. Johnson is working with Drs. McCullough and Lloyd to develop targeted DNA repair enzymes that can be delivered to the skin for repair of ultraviolet (UV)-induced DNA damage and prevention of UV-induced skin cancer. Skin cancers (basal and squamous cell carcinomas) are the most prevalent human cancers, affecting over one million people in the United States annually and costing billions of dollars in health care and work loss. The research award was announced at the March meeting of the Dermatology Foundation in San Francisco. The Dermatology Foundation's Research Grants provide financial support for research projects in dermatology and cutaneous biology that benefit the dermatology community at large.

For more information on the research being conducted by Drs. McCullough and Lloyd, visit, <http://www.ohsu.edu/xd/research/centers-institutes/croet/research/index.cfm>, or see CROET Newsletter Vol. 13, Number 2, 2005 at, <http://www.ohsu.edu/xd/research/centers-institutes/croet/about/publications.cfm>.

2009 GOSH Conference a Success

The Oregon Governor's Occupational Safety and Health (GOSH) conference, sponsored by OR-OSHA, is considered the 'big one' by most Oregon safety and health specialists — and this is certainly true for those of us involved with outreach at CROET. The GOSH is



CROET Occupational Safety and Health Specialist Dede Montgomery and Fred Berman, CROET Toxicology Information Center Director, enjoy a light-hearted safety-oriented conversation with Oregon OSHA Administrator Michael Wood (center).

an opportunity for us to meet and greet large numbers of old and new friends in the occupational safety and health field, and more importantly, to get the word out about who we are and what CROET has to offer to those in the Oregon workforce. In spite of the fact that CROET is an old and familiar face at all OR-OSHA-sponsored conferences, we still manage to meet people who have never heard of CROET and know nothing about what we offer, which is why we keep showing up — like fishermen (and fisherwomen) on the eternal quest to land the big one. Thank you for allowing us the honor to serve you in our mission to promote health and safety in the Oregon workforce.

CROET and OR-OSHA to Co-sponsor Symposium: Looking Forward to 2020

CROET and Oregon OSHA will be presenting a symposium titled “Oregon’s Workplace Health and Safety: Looking Forward to 2020”. This event, to be presented in September, follows in the footsteps of a 1998 CROET symposium titled “Health and Safety in the 21st Century Oregon Workplace”. As with the prior event, the current symposium will bring together leaders from industry, government and labor who, from their own unique perspectives, will address health and safety in the Oregon workplace of the future. Keynote speaker will be John Howard, M.D., M.P.H., J.D., LL.M. Dr. Howard served as Director of the National Institute for Occupational Safety and Health from 2002 to 2008 and currently serves as a distinguished consultant in the Public Health Law Program at the Centers for Disease Control. A preliminary agenda, on-line registration form and listing of speakers is available at: <http://www.ohsu.edu/xd/research/centers-institutes/croet/outreach/looking-forward-to-2020.cfm>.

You can view information and materials from past CROET Symposia, including our most recent symposium, “The Body’s Response to Environmental Stress”, at: <http://www.ohsu.edu/xd/research/centers-institutes/croet/outreach/health.cfm>



**CROET
&
Oregon OSHA
Presents**

**Oregon's Workplace
Health & Safety:
Looking Forward to 2020**

**September 24, 2009
8:45 AM - 3:30 PM
Red Lion Jantzen Beach**

Be Aware of Summer Work Hazards

CROETweb.com provides the details

Ah, the long hot days of summer can make it such a pleasure to work outside. But pleasure can rapidly turn to distress for the unprepared.

First there's the sun. Most of us are savvy enough to dress appropriately and apply sunscreen to protect against sunburn and reduce the chances of developing skin cancer, which in its various forms is now the most common cancer in humans. But there is also the danger of heat exhaustion, which if not recognized, can rapidly progress to life-threatening heat stroke. Much has been written on this subject, including good information from Oregon OSHA, which you can find on CROETweb.com by clicking on the subtopic “Heat Stress and Sun Exposure”.

Second, there's the increased danger of traffic accidents. Summer finds our highways busy with tourists in addition to the normal traffic of commerce. And with Federal stimulus funds, you can expect to see a lot more roadwork being conducted on Oregon highways. Please help increase safety in work zones by visiting the “Work Zone Safety” topic on CROETweb.com.

Third, summertime is when young workers find seasonal employment. Young workers tend to receive minimal or inadequate training on safety and health issues and have unique risk factors for injury and illness. If you hire or are yourself a young worker, you can increase workplace safety by visiting the “Young Workers” topic on CROETweb.com.

Finally, summer is the time when more work occurs outdoors, which increases the risk for insect-borne disease, including tick-borne illnesses such as Lyme disease, and the mosquito-borne illness of West Nile Virus. Learn more about these under the “Biological Hazards” subtopic of CROETweb.

Have a great summer, but be careful out there!

Center for Research on Occupational and Environmental Toxicology

CROET, the Center for Research on Occupational and Environmental Toxicology at Oregon Health & Science University, conducts research, provides consultations and offers information on hazardous chemicals and their health effects. CROET's scientists and research staff explore a range of questions relating to health and the prevention of injury and disease in the workforce of Oregon and beyond. CROET's Toxicology Information Center is open to the public and is staffed to answer Oregonians' questions about hazardous substances in the workplace and elsewhere. CROET's Web site also provides answers to questions about industries found in Oregon through links on a series of pages devoted to industry-specific topics.

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OUTREACH

Central Oregon Occupational Safety & Health Conference

Eagle Crest Resort - Redmond, Oregon
September 16-17, 2009

Southern Oregon Occupational Safety & Health Conference

Smullin Center - Medford, Oregon
October 21-22, 2009

Western Pulp and Paper Workers Safety & Health Conference

Red Lion Hotel on the River - Jantzen Beach - Portland, Oregon
December 1-4, 2009

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Oregon Health & Science
University includes the
Schools of Dentistry,
Medicine and Nursing;
OHSU Hospital; numerous
primary care and specialty
clinics; multiple research
institutes and several
outreach and public service
units. OHSU is an equal
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