This exciting edition of the Gateway to OSH Newsletter highlights a number of activities that are underway at the Center, as well as highlighting fellowship and scholarship recipients, and an Advisory Board member. Recent achievements include:

- **Our competitive renewal was submitted to NIOSH,**
- **Progress has been made on the National Occupational Research Agenda,**
- **Website 3rd Edition has been unveiled,** and
- **Two new grants have been funded, one a competitive renewal ($2M total funding).**

**Competitive Renewal**

The Rocky Mountain Center for Occupational and Environmental Health (RMCOEH) is currently undergoing a competitive renewal. The last such renewal was 5 years ago, which is the maximum time allowed. The grant application was due September 13, and totaled 3,508 pages. Yes there were a few duplicate pages among the programs, but the total individual page count was likely in excess of 1,500. The format of this application was quite different from prior versions and required far greater commitments of time to complete. In fact, we documented over 3,000 hours of work on the grant application. A site visit from NIOSH is scheduled for February 13, 2007 with results due in May. (We will gladly accept wishes of good luck!)

In the process of this renewal, we have made a number of improvements and proposed others for the future. Proposed changes for the future include three proposed research training projects, all of which would involve students. These include research into health effects in miners from low level exposures such as silica, continuation funding for our low back pain cohort study, and small scale interventional studies to reduce risk for musculoskeletal disorders. We also proposed adding post-doctoral training. This training is an important bridge to an academic career as it provides funding support for a young faculty member while they work to establish research expertise under faculty guidance. We must caution that in a competitive renewal, one never knows whether any of a proposal's components will be funded. However, we are hopeful! We also have projected an increase in the numbers of our faculty, and OHN program restart.

Other improvements that we have made also include a Diversity Recruitment plan. We have contacted Tribal Colleges in Region VIII, as well as university diversity/minority recruitment personnel. We plan to schedule more visits over the next year. We also highlighted our current graduate count: 363 graduates to date!

**NORA II Progress**

The RMCOEH continues to emphasize research to develop sources of knowledge and experiences for our students, as well as being an engine of exciting future growth. As noted previously, our success at seeking extramural funding continues. All of our extramural projects involve students. While we fully understand that many of our students will not conduct research in the future, we feel two things are guaranteed. Through their experiences here, an understanding of the strengths and weaknesses of research studies will be imparted and allow for better abilities to read publications and make informed decisions about whether and when to implement changes in OSH programs based on publications. Also, our graduates will be well trained to be able to understand research needs, conduct some field studies or engage researchers and know what questions to ask.

Many may recall that the RMCOEH hosted a National Occupational Research Agenda (NORA) II Town Hall meeting on January 26, 2006 to develop the agenda for the second decade of NORA. This was the largest meeting of any in the U.S., and we thankfully had tremendous support and a lengthy research agenda (available on our web). While the complete NORA II agenda has not been released, we are pleased to be able to return a short progress report despite the passage of so little time. One of the areas of interest concerned adverse health effects on police officers and firefighters. We successfully landed that contract from the Utah Labor Commission, so that work has already begun. Another area of major emphasis was on various aspects of musculoskeletal disorders, which are continuing.

**What's New?**

Changes that we have made over the past 6 months that are spotlighted in more detail elsewhere in this newsletter include: unveiling of our third generation of the RMCOEH website and development of a new capstone course for the students. Also, we have a listing of our Outreach lectures available on the web. We have added a Statistical and Economic Evaluation Unit in the RMCOEH that is led by Norm Waitzman, PhD, Department of Economics. This was added due to the perceived increasing need for graduates to be more conversant in business requirements, and the need to provide more robust costs-benefits estimates from OSH programs.

Hopefully it is clear that many changes have been made in the past several years at the RMCOEH and many more will be made in the coming years. As always, we welcome your feedback and input on these changes or any other ideas you think would be worthwhile. Thank you!

Kurt T. Hegmann, Center Director
Recipient of Dr. Paul S. Richards Safe Workplace Scholarship

Philip Jiricko, MD, MHA, MS is a new RMCOEH Occupational Medicine student. He received his undergraduate in both Management of Technology and Math from Vandoall University. Philip then received his Master of Science in Biotechnology with a concentration in Immunology from Purdue University. He graduated from Ohio State Graduate School in 2004 with his Masters in Health Administration and also from Ohio State Medical School with his medical degree. He chose the field of Occupational Medicine because “it is a field that allows diverse career options; one can literally change careers every five years and always be challenged by a new opportunity.” Philip would like to work as a clinician 1-2 days a week and also move into a leadership position in administration.

During his administrative fellowship at The Ohio State Medical Center, Philip created the Palm-Link Initiative. He organized a team that developed computer programs enabling medical personal to link information from administrative servers to Palm handheld devices to provide real time communications and schedules. He also developed the Herbal Safety Initiative, a Palm herbal reference card for clinicians explaining the side effects and drug interactions of commonly used herbal products.

Philip is the co-founder of Maternal Health Promotion, Inc., a pregnancy education media program for physicians and managed care organizations to provide affordable and evidence based patient education.

During his medical director fellowship, in Masters Health Administration training, Philip researched and analyzed emergency room utilization internal cost structure and competing programs for reducing emergency services. He also created, developed, and implemented a pilot program for reducing inappropriate emergency room utilization by members. The program included altering marketing structure, implementing new product lines and changing physician contracting.

Outside of work Philip enjoys skiing, hiking, camping, canoeing, exploring, and spending time with his wife and children.

The New Police Officers and Firefighters Study

On November 10, 2006, Sherrie Hayashi of the Utah Labor Commission met with Dr. Kurt Hegmann, Director of The University of Utah, Rocky Mountain Center for Occupational and Environmental Health (RMCOEH), Dr. Rod Larsen, Industrial Hygiene Program Director and Dr. Michael Magill, Chair, Department of Family and Preventive Medicine, to sign and award RMCOEH a two-year contract to conduct a study of cancer and other illness rates relating to the occupational diseases firefighters and drug enforcement officers are exposed to in their professions. RMCOEH was awarded the contract after submission of their bid following a Request for Proposal issued by the Commission.

During the last legislative session, Rep. Joseph Murray sponsored House Bill 009, which passed unanimously. It appropriates $500,000 from the Utah Labor Commission’s Workplace Safety Account to be utilized for the study. Funds come from both employers and workers’ compensation insurance companies.

The Police/Drug Enforcement Officers are potentially exposed to over 2 dozen chemicals, some proven to be carcinogenic (e.g. benzene, isosafrole). There are a number of different Public Safety employees with potential methamphetamine exposures include Drug Enforcement Officers, Police and especially SWAT team members who respond to calls to uncontrolled or unexpected situations, and other personnel tasked with methamphetamine “lab” clean-up duties.

With the Firefighters, there has been longstanding concern about risk for neoplasias among the firefighters, yet to our knowledge, there has never been an assessment of risks among Utah’s firefighters. While there have been many mortality studies of firefighters over the years, in reviewing available information, it appears that very few have been cohort studies, the best type for suggesting causality, with adjustments for major potential confounders.

This study is essential for the Commission and the Legislature to allow for educated policy decisions as to whether or not there is evidence for a law to require that certain diseases should create a presumption of entitlement to workers compensation benefits.

RMCOEH will begin the study immediately and it must be completed by October 15, 2008, and then presented to the Business and Labor Interim Committee of the Utah State Legislature no later than November 30, 2008.
Two Large, Prospective Cohort Studies have been initiated to study these relationships.

Prospective cohort studies are the most powerful in determining what causes a disease and what can be done to prevent it. Not even one well designed cohort study has been completed to evaluate Musculoskeletal Disorders (MSDs). This includes Carpal Tunnel Syndrome (CTS), Tennis Elbow and Low Back Pain. Prior studies have many weaknesses including not measuring the jobs, not examining the workers and/or not following up the workers. Understandably, such cohort studies are necessarily expensive and time consuming.

This Upper Extremity cohort study is being performed in Wisconsin and Utah since Spring 2003. The Lower Back Study also has involved Texas and has been in progress since 2004.

We are excited to report that the Distal Upper Extremity Study has received funding for an additional three years. The University of Utah’s Rocky Mountain Center for Occupational and Environmental Health and the University of Wisconsin–Milwaukee will be continuing to collect monthly follow up data from participants at the numerous companies included in this study. This additional funding will also allow us to enroll additional companies with individuals interested in participating in the study.

By gathering and analyzing the information collected in our monthly follow ups, we hope to be able to build superior mathematical models for predicting upper extremity disorders, as well as develop a more rigorous scientific basis to enable the development of interventions to enable some workers to avoid or delay the onset of these symptoms. We intend to take the models to various companies and help them develop interventions specific for their employees. We will also show them areas where we can suggest changes in work conditions to improve the health of their workers and reduce the occurrence of these work-related injuries.

Specific problems and disorders being studied include: those mentioned previously and Medial Epicondylalgia (golfer’s elbow), as well as other problems extending from the neck to the fingertips. We are analyzing the data we have collected thus far and are excited by the early results as we begin to see some interesting developments.

Although our analyses are still in the early stages, we have already identified many new risk factors that appear to be causing these diseases. As we progress with this study and identify potential risk factors, we will continue to inform all involved.
Advisory Board Spotlight: Dean Lillquist, PhD, CIH

Dean Lillquist has served on the RMCOEH Advisory Board for 2 years and is the Director of Salt Lake Technical Center (SLTC), Directorate of Science, Technology and Medicine (DSTM), a unit of the U.S. Occupational Safety and Health Administration (OSHA). SLTC is the lead national facility in OSHA for analytical chemistry in industrial Hygiene. It houses the national field emergency response team specializing in health and engineering and is also home to members of OSHA’s specialized response team that provides a field response to large-scale disasters or terror attacks.

Prior to his current appointment at Salt Lake Technology Center, Dr. Lillquist was the Industrial Hygiene and Hazardous Substances Academic Training Program Director here at Rocky Mountain Center for Occupational and Environmental Health. He performed research and published in the areas of exposure assessment and airborne hazards, and also had a major role in training dozens of industrial hygienists who are now practicing professionally.

After receiving his master’s degree in public health from the University of Minnesota, he took a position with the National Institutes of Health in Bethesda, Maryland, where he worked for two years in health, safety and environmental on the research campus. But then, his father developed asthma. He had been working as a commercial electrician and changed jobs to become a facilities electrician at a company that manufactured wood products. His health problems soon followed. That got Dr. Lillquist refocused on industrial hygiene and occupational health, and provided as impetus to be an Industrial Hygienist.

In his position at SLTC, he is more involved with management and participates in the national dialog of health and safety issues. The station affords him a vantage point from which to assess emerging issues in health and safety.

Dr. Lillquist lives in Utah with his wife and two children and enjoys skiing, mountain biking, fishing, hunting and hiking. He also likes catching up with his colleagues from Fort Collins at professional conferences.

Dr. Lillquist enjoys making a major difference in improving public health, environmental health and occupational health.

Annual Conference Updates

The 23rd Annual Utah Conference on Safety and Industrial Hygiene was held October 4-6, 2006 on the University of Utah campus. Over 200 participants from the safety and industrial hygiene communities participated in the 2-day conference and affiliated professional development courses. This year’s conference included two informative keynote speakers: Dean David S. Chapman from the University of Utah and Carl and Deb Potter, Ph.D. from Potter and Associates International. Dr. Chapman opened the conference with a lecture on global warming. Drs. Potters’ second-day thought provoking keynote session challenged employees at all of the levels of the organization to realize that safety is everyone’s responsibility. The conference also featured a scaffolding demonstration that was previewed at the conference reception and was also supported by 27 exhibitors.

Future Conferences

The 19th Annual Compensable Disability Forum will be held on February 10, 2007 at the Utah Law and Justice Center in Salt Lake City, Utah. For 18 years, this event has provided an interdisciplinary forum for interested professionals and employers to generate dialogue while improving their skills in confronting compensable disability issues that arise in the workplace. Over 125 participants including insurance adjusters, nurses, and employers, participated in last year’s forum. This year’s forum will focus on a variety of topics including Undocumented Workers and Workers’ Compensation, Insurance Fraud in Workers Compensation, and Prescription Narcotic Drug and Unusual Injuries/Deaths. The event will also include exhibitors spotlighting resources related to managing compensable disability.
January Courses
- OSHA 502: Update for Construction Industry Outreach Trainers
- Safety Program Management
- Asbestos Project Designer Refresher
- Lead Inspector Refresher
- OSHA 510: Occupational Safety and Health Standards for the Construction Industry
- Better Workplace Safety = Better Business: A Seminar to Improve Safety in Diverse Workforce
- Fundamentals of Industry Hygiene (Denver, Colorado)

February Courses
- 19th Compensable Disability Forum: Update 2007
- Practical Chemistry for Hazardous Materials
- OSHA 503: Update for General Industry Outreach Trainers
- Pulmonary Function Testing
- CAOHC-Approved Occupational Hearing Conservation
- Respiratory Protection & Fit Testing
- 8-Hour Hazardous Waste Refresher
- OSHA 501: Trainer Course in Occupational Safety and Health Standards for General Industry

March Courses
- State-of-the-Art Conference on Musculoskeletal Disorders
- Indoor Mold Contamination: Choosing & Supervising the Proper Remediation
- Comprehensive Review of Industrial Hygiene
- Asbestos Inspector/Management Planner Refresher
- OSHA 3095: Electrical Standards
- Introduction to Industrial Hygiene: Professional Practice and Ethics (Night Class)

April Courses
- Asbestos Contractor/Supervisor Refresher (Moab, UT)
- Lead Risk Assessor Training
- 5th Annual Regional National Occupational Research Agenda (NORA) Young/New Investigators Symposium
- Asbestos Abatement for Contractors and Supervisors

May Courses
- Certified Hazardous Materials Manager Review Course & Exam
- Decontamination Specialist Training
- Environmental Issues and Regulations (Night Class)
- OSHA 500: Trainer Course in Occupational Safety & Health Standards for the Construction Industry
- 40-Hour Hazardous Waste Operations and Emergency Response Course (HAZWOPER)

June Courses
- OSHA 511: Occupational Safety and Health Standards for General Industry
- International Air Transportation Association Training
- Supervisors
- Hazardous Waste Management Simplified

New Capstone Course to be Held

Our new "Occupational Safety and Health Solutions" course brings all three academic cores together for a real-world capstone experience. Both students and faculty from all three academic cores will participate in this new course. Drs. Richard Sesek (Ergonomics and Safety), Eric Wood (Occupational Medicine), and Scott Collingwood (Industrial Hygiene) will team teach this interactive course. Several local companies will partner with the Rocky Mountain Center to provide a real world setting for projects.

Students will be given actual safety and health concerns and will work with local safety and health professionals from these partner companies to identify and recommend remedies. Particular emphasis will be placed on compliance with applicable safety and health regulations and standards. Through involvement of Norm Waitzman, PhD (Dept. of Economics) and Kristin Smith-Crowe, PhD, MS (School of Business) students will be exposed to the business aspects of safety and health, including methods for estimating the payback of occupational safety and health interventions as well as the cost associated with the "status quo."

Companies interested in participating with this class should contact Dr. Sesek at 801 587-9643 (r.sesek@utah.edu) for more information.

Redwood Clinic’s new Physician Assistant

The RMCOEH is excited to welcome Susanna Chase, PA-C, to the provider team at the OccMed clinic at the University of Utah’s Redwood Health Center. Susie graduated from the University of Utah’s Physician Assistant Masters program in 2005.

Susie received her bachelor’s degree from the University of South Alabama in Biomedical Sciences in 2001. After graduation, she moved to Utah in anticipation of applying to PA school at the University of Utah. She worked in the Molecular Hepatitis and Retrovirus Departments at ARUP Laboratories prior to and during the first year of PA school. While in PA school, she participated in an international rotation in Thailand that increased her interest in travel and tropical medicine. Upon graduation, she began working in urgent care. She comes to the OccMed clinic with a year of experience in urgent care medicine. She looks forward to continuing to evaluate and treat acute injuries in addition to providing continuity care for injured workers.

Susie is originally from Florida and Alabama. She is married to Levi Chase. Her interests include outdoor sports such as snowboarding, hiking, biking, swimming, camping, and travel. Currently, her favorite past time is home remodeling.
The RMCOEH has been revamping our website. The new version puts us in compliance with U of U regulations for formatting and includes lots of information previously not available on the website that we are gradually adding.

Please take a look at the new site: http://uuhsc.utah.edu/rmcoeh

or you can still use the old link and be redirected.

We are very interested in any feedback or recommendations for improvements to improve the look and usability of our new site!

(Contact Miriam Felton at Miriam.Felton@hsc.utah.edu with feedback.)