Campus Internationalization Reflected in Faculty and Students at ERHS

At the Department of Environmental and Radiological Health Sciences, faculty and students have embraced wholeheartedly a Colorado State University initiative on internationalizing the campus. Visiting foreign students from Egypt and China work and study in departmental labs and classrooms, ERHS undergraduate and graduate students are traveling to Africa, South America, Australia and Europe for internships and study abroad programs, and faculty members are reaching out to the world through continuing education, sabbaticals, visiting lectures, workshops, and short courses.

Efforts like those at ERHS, and other colleges and departments across the campus, recently helped Colorado State University receive national recognition for its campus internationalization efforts. CSU is one of only two land-grant research universities profiled in a report to be released this fall titled “Internationalizing the Campus 2008: Profiles of Success at Colleges and Universities.” The report is published by NAFSA: Association of International Educators.

“ERHS faculty members and students are taking the initiative to gain international experiences,” said Dr. John Zimbrick, Head of the Department of Environmental and Radiological Health Sciences. “This not only is a wonderful learning opportunity for the individual, but brings back to the campus a wealth of knowledge to enhance our programs here.”

Dr. Zimbrick also noted that when students and faculty members travel abroad, they act as ambassadors for the Department and the University, as well as make global connections that can lead to joint ventures, new internship and study abroad opportunities, and innovative research projects. This includes distance-learning projects, such as the Health Physics Board Review class offered online to an international audience and the Physiologically-Based Pharmacokinetic Modeling Workshops which draw participants from almost every continent.

For the NAFSA award, institutions that are highlighted demonstrate significant strides in campus-
Welcome

Dear Friends,

Welcome to Emitter Magazine, International Edition, where our focus is on the wealth of international experience our students and faculty members are bringing to the Department of Environmental and Radiological Health Sciences. Colorado State is committed to growing areas of study that address global challenges and creating international partnerships to face those challenges. Our Department has embraced that challenge and our students, faculty and staff members are finding innovative ways to study and research in programs from New Zealand and Nicaragua, to Costa Rica and Switzerland.

We also are welcoming international faculty and students at the Department through visiting scholar programs, online learning opportunities, and highly specialized workshops. In mid-July, two graduate students from the National Cheng Kung University in Taiwan will be coming to CSU for advanced training in toxicology. I-Cheng Chou and I-Ching Wang, a husband and wife team, are doctoral candidates in environmental engineering and have been awarded a special fellowship to study abroad from the National Science Council in Taiwan.

Our own students are heading abroad in record numbers and you’ll read about undergraduate students leading a cook stove project in Nicaragua, launching a global initiative to improve disaster relief, studying in New Zealand and Costa Rica, and more. We have two graduate students heading to Geneva for summer internships with the World Health Organization and the United Nations, and a faculty emeritus who is playing an instrumental role in the development of an industrial hygiene graduate program in Romania. We are certainly keeping the passport office busy!

What these experiences mean to the Department, and to the greater University, are students who have a broader understanding of the world and who are part of a global community committed to solving global problems such as hunger, poverty, disease, climate change, and environmental degradation. They are ambassadors for Colorado State University, and bring back to the University a wealth of experiences that will improve our own understanding of societal issues, as well as bring new approaches to solving old problems and rising to meet new challenges.

I hope you enjoy the Spring 2008 Edition of Emitter Magazine. I welcome your questions and comments on the magazine and its contents, as well as suggestions for articles in future editions. Please drop us a line or give us a call with your input. I wish each of you a wonderful and safe summer and I look forward to hearing from you soon.

Best Regards,

John D. Zimbrick, Ph.D.
Professor and Head

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The ERHS Emitter is published three times annually by Colorado State’s Department of Environmental and Radiological Health Sciences and produced by Communications and Creative Services. We welcome your questions, comments and story suggestions. You can e-mail your comments to Carol Borchert, ERHS Editor, at carol.borchert@colostate.edu. You also can visit us on the Web at www.cvmbs.colostate.edu/erhs/.

ERHS Calendar

May 16-17 – Colorado State University Spring Commencement (www.colostate.edu)

May 31- June 5 – American Industrial Hygiene Association Conference and Expo, Minneapolis, Minn. (www.aiha.org)

June 22-25 – National Environmental Health Association Annual Education Conference and Exhibition, Tucson, Ariz. (www.neha.org)

Aug. 4-8 – PBPK Modeling Workshop for Beginners (www.cvmbs.colostate.edu/erhs/)

Aug. 25 – Fall 2008 Classes Begin at Colorado State University
Students Work to Make Nicaraguan Stove Project Permanent Summer Program

Since humans first discovered fire, and began cooking and heating with its flames, they’ve been exposed to particle-filled smoke and suffered the accompanying respiratory health hazards. Now, undergraduate students in the Department of Environmental and Radiological Health Sciences, hope that a research project in Nicaragua will begin to lead the way to cleaner air for half the world’s population still cooking on makeshift wood stoves.

“The exposure is massive in women and children, pretty much the equivalent of smoking two packs of cigarettes a day,” said Tom Hraha, who is one of six students heading to Nicaragua this summer for the cookstove project. “More than 1.6 million people die every year from respiratory illnesses and indoor pollution is a major contributing factor.”

Hraha noted that while the new cookstoves have been installed by nonprofit groups in Nicaragua and other countries, few longitudinal studies have been done to see how the stoves are used, if the stoves are maintained, and if health surveys improve over time. While the cookstoves may be a potential cure for serious respiratory issues, the follow-up research so far hasn’t happened.

“We will be studying 100 families in Nicaragua,” said Erin McGuinn, another student traveling to Nicaragua, who will bring her environmental health skills along with her fluent Spanish. “The nonprofit organization Trees Water People and our group are splitting the $9,000 cost of the stoves. The nonprofit group Proleña will install the stoves, and the CSU group will follow by establishing data points with health surveys, home and personal monitors, lung function testing, and taking blood spots to establish a data baseline.”

The groups that travel to Nicaragua during subsequent years will then be testing the effects of the stoves on reducing indoor air pollution over time, a reduction that could possibly have positive health outcomes since indoor air pollution is associated with respiratory illness.

Hraha, who is double-majoring in environmental health and microbiology, developed the project idea, which has received funding from numerous sources including the CVMBS College Council, the Office of International Programs, Associate Dean Kenneth Blehm, ERHS, the Colorado Environmental Health Association, Student Leadership, Involvement and Community Engagement (SLICE), and Trees Water People. The University of Nicaragua Medical School also is participating in the project.

Hraha, who will graduate in May, will stay the summer in Nicaragua then take a year off to work and climb Mt. McKinley in Alaska. After that, he plans to apply to medical school. McGuinn also is interested in attending medical school and obtaining her master’s in public health. Her main interest is figuring out ways to reduce the disease burden in Third World countries.

“People die every day in the developing world from health problems associated with poverty,” said McGuinn. “They die from simple things that we take for granted, such as clean water and clean air, and lack of access to inexpensive life-saving medications like antibiotics. I think that with the Nicaragua project, we can do something that will make a visible change in people’s lives, and we are really excited to have this opportunity.”

Other students working on the Nicaragua project are Danielle Wagner, Leslie Marchand, Alisa Tonozzi, and Matt Bruno. Faculty and staff members assisting the students include Drs. Jennifer Peel, Steve Reynolds, John Volckens, David Gilkey, and Kenneth Blehm, and undergraduate adviser Erin Reichert. Dr. Maggie Clark, an ERHS postdoctoral student who did a similar project in Honduras, has been helping the group. Also, Judy Heiderscheidt, who was previously the undergraduate adviser for the Department, is working with the team. She and her husband, Bill, will be going with the team to Nicaragua for the entire two months of the project.
The Office of International Programs (OIP) recently announced the recipients of the new OIP Undergraduate Study Abroad Scholarships through the CSU Internationalization Plan. Of five awarded to students in the College of Veterinary Medicine and Biomedical Sciences, three were given to students in the Department of Environmental and Radiological Health Sciences (ERHS).

“These specialized funds were created to encourage more undergraduates to participate in international learning experiences,” noted Dr. James Cooney, Associate Provost and Director of International Programs. “The first ever scholarship cycle took place this past fall, and we are excited to have awarded more than $25,000 to students studying abroad during the Spring 2008 semester. Scholarships varied from $500 to $750 for a semester program and were based on both need and merit.”

Students in ERHS who received scholarships are Madeline Anna, Laura Pfaff, and Chelsea Templin-Hladky, all of whom are studying in New Zealand.

In addition to the Study Abroad Scholarships, the Internationalization Plan established grants to support faculty-led international field experiences. Dr. Jennifer Peel, an Assistant Professor in ERHS, received funding for an undergraduate project studying cookstoves in Nicaragua.

The funds for Study Abroad and the international field experiences are part of a larger pool of more than $200,000 for new international student and faculty initiatives at CSU. For more information, or to download an application, visit OIP at www.international.colostate.edu.

The Ergonomics Group (from left to right, Jennie Gober, David Douphrate, Angela Dartt, and John Rosecrance), traveled to Boston last August to attend PREMUS 2007: The Sixth Annual Conference on Prevention of Work-Related Musculoskeletal Disorders. The conference is held every three years and serves as a forum for work-related musculoskeletal health research with an emphasis on prevention of work-related musculoskeletal disorders. Three abstracts were accepted and presented by the CSU Ergonomics Lab: MSDs Among Colorado Agricultural Workers: An Analysis of Workers’ Compensation Claims Data (Douphrate and Rosecrance); Prevalence of Carpal Tunnel Syndrome Among Experienced Construction Workers (Rosecrance, D. Anton, and L. Merlino); Field Evaluation of Ergonomically Designed Aviation Snips (Dartt, Rosecrance, and Gober).
Sara Evenson knows a thing or two about international emergency response to unpredictable disasters such as earthquakes and tsunamis in remote corners of the world – it’s usually too slow and often too late. She’s also seen firsthand the underwhelming response to foreseen disasters, such as the famine in Somalia – usually not enough and often the wrong kind of help. It’s not for a lack of desire or concern, but rather an inefficient use of resources, poor training of the local population, inadequate or nonexistent infrastructure and, oftentimes, extenuating circumstances such as civil war that results in people not getting the kind of help they need at the right time and at the right place.

But Evenson, a career flight nurse and now an undergraduate student in the Department of Environmental and Radiological Health Sciences, hopes to make a difference by applying her knowledge of emergency medicine and international response, along with environmental health, to one day develop a training program for first responders.

“After a natural disaster, such as an earthquake, the first 24 to 48 hours are critical for survival,” said Evenson. “After the first 48 hours, survival rates drop dramatically. It’s difficult for international disaster response teams to get to the disaster site that quickly, which makes training local physicians and other health care providers in disaster preparedness and response so important. They, in turn, can provide training to their own search-and-rescue teams which would improve survival outcomes of their local populations.”

Evenson has had a long career of helping others after first graduating from nursing school in Nebraska and then training as an emergency medical technician-paramedic. She has worked on a missionary ship supporting floating medical missions, on a “flying hospital” as a nurse and coordinator, as a coordinator for Northwest Teams International supporting emergency response teams to disaster areas, in a mobile health van providing care for migrant workers, and as a flight nurse on long-distance emergency medical transport flights. In 1992, she helped to develop a mobile medical program on the Kenya-Somalia border, assisting Somali refugees fleeing the turmoil of their home country. This is where she saw her first major public health crisis, an experience that would later lead her to an interest in environmental and international health.

“There were so many public health concerns, I was initially just overwhelmed,” said Evenson. “Poor water quality, transmission of infectious diseases, minimal waste management, and feeding centers that had been established to provide just basic nutritional needs. Many of the children were not able to survive, and starvation became a reality to me.

“The task was enormous and resources were limited, but our organization was able to treat 24,000 people during a nine-month period. Upon returning to the United States, I evaluated how different organizations respond to disasters and thought there might be a better way to address the underlying problems before disaster strikes.”

Evenson has traveled to more than 50 countries and has seen the challenges of providing for disaster preparedness and relief in poor communities where even a shovel is a luxury item, but it isn’t stopping her from pursuing her ambitions to help at-risk communities help themselves.

“I originally wanted to put together a disaster response team, but then realized it makes more sense to train local teams to be better prepared to help themselves and also assist neighboring countries of disaster-prone regions to develop teams that could respond quickly when disaster strikes,” said Evenson. “I’d like to target countries that are at high risk for catastrophic disaster – Ring of Fire countries – with large populations living in unstable areas. If we can educate the population before disaster happens, with standardized training and preparedness, they can respond quickly because they will know what to do, what to have in place, and how to function together as a team. I see my role as training the trainers so they can develop their own disaster response teams.”

After she graduates in May, Evenson hopes to find support for her training program from government agencies or private foundations, or both. She will have to rely on the kindness and generosity of others to help her help those less fortunate. We are, she notes, “so rich in this country, we need to share that with others who have so little, especially in times of dire need.”
In 1997, Dr. Roy Buchan was in Romania to teach a one-week short course in occupational hygiene at a public health institute in Bucharest. While he was there, a site visit to a medical clinic set in motion a series of events that would lead to the eventual establishment of the first graduate program in occupational hygiene at the Iasi Technical University last fall – with Dr. Buchan teaching the first graduate-level course.

“I was given a tour of a silicosis clinic and they told me that their clinic alone lost 3,000 people each year to silicosis,” said Dr. Buchan, Professor Emeritus from the Department of Environmental and Radiological Health Sciences and a CSU graduate. “For Romanian physicians in occupational medicine, their primary responsibility was to care for the people suffering from occupational diseases. There was a tremendous need in Romania for occupational hygienists to help prevent these diseases and deaths.”

Occupational exposures to respirable crystalline silica, including mining, construction, and sandblasting, are associated with the development of silicosis, lung cancer, pulmonary tuberculosis, and other airway diseases. In the United States, silica-related diseases are largely preventable (though an estimated 300 workers still die annually from silicosis), but in Romania preventive measures, and safety and health measures were simply not in place.

After his 1997 visit to Romania, Dr. Buchan was invited back several times to present lectures and teach short courses, with the support of Colorado State University and the Department of Environmental and Radiological Health Sciences. Other American professionals, in collaboration with their Romanian colleagues, also lectured at professional conferences and taught short courses. These professionals included Cindy Becnel, an industrial hygiene graduate of Colorado State University. In time, a cadre of enthusiastic Romanian professionals wanted to form a Romanian occupational hygiene association. Working with the American Industrial Hygiene Association (AIHA) and its International Affairs Committee, as well as its Rocky Mountain Section, to establish bylaws and standards, the Romanian Occupational Hygiene Association eventually was established.

“While the short courses were beneficial, I came to believe that if occupational hygiene was to really take root in Romania and become a recognized and active profession, highly educated professionals with university degrees had to be produced to stand beside occupational physicians and toxicologists in the task of preventing occupational disease,” said Dr. Buchan. “I e-mailed Radu Branisteanu, an occupational hygienist I had worked with over the years, and asked if it would be possible for me to teach a graduate course in occupational hygiene at Iasi Technical University in the fall of 2007. He responded immediately that the course would be welcomed.”

With donations of equipment and text books from AIHA, Quest Technologies, the ACGIH Foundation, and SKC Inc., Dr. Buchan arrived in Iasi last September to teach his course to a non-English-speaking group of Romanian physicians, chemists, toxicologists, engineers, safety inspectors, and one dentist. Working with Branisteanu, Power Point slides were translated, equipment demonstrated in Romanian, and free-flowing lectures filled with questions and answers went back and forth from English and Romanian. The course turned out to be one of the most rewarding experiences of Dr. Buchan’s academic career.

“The course was a tremendous success, but much more has grown from the planted seed of one new course,” said Dr. Buchan. “Since my return to the United States, a new Department of Occupational Hygiene and Safety has been established and Iasi Technical University has hired Branisteanu to further develop the graduate program (with syllabi from ERHS). I have agreed to return in 2008 to teach a more advanced course and the labor inspector Andrei Albulescu is taking a proposal to the Romanian Department of Labor to have Occupational Hygiene approved as a recognized profession.”

For Romania, the development of occupational hygiene in a country still trying to move past brutal regimes and into a modern era, is a great step forward in its own industrial revolution – a development that will improve workplace safety, enhance working conditions, and save the lives of countless workers. For Dr. Buchan, it also means that the silicosis clinic he visited in years past, where so many young workers died, may soon be a thing of the past.
Dr. Raymond S.H. Yang, a Professor in the Department of Environmental and Radiological Health Sciences, has received the 2007 Distinguished Chinese Toxicologist Award from the American Association of Chinese in Toxicology, Society of Toxicology.

“Dr. Yang is an extremely talented scientist as well as a dedicated teacher and we are honored to have him on the faculty at the Department of Environmental and Radiological Health Sciences,” said Dr. John Zimbrick, Department Head. “This honor is a reflection of his vast body of work in toxicology and the international reputation he has developed.”

Dr. Yang came to Colorado State University in 1990, and is now working half-time under an Intergovernmental Personnel Act award at the National Center for Environmental Assessment in Cincinnati (NCEA-Cin) as well as continuing his work at ERHS. Originally from China, he received his bachelor’s degree in biology from National Taiwan University, then spent time in the Chinese Marine Corps, before coming to the United States in 1964 to attend North Carolina State University, where he received his master’s and doctorate degrees in toxicology and entomology.

“I was always interested in chemistry and toxicology, specifically pesticides,” said Dr. Yang. “Taiwan has a subtropical climate and well-developed agriculture, but insects are a big problem so the study of pesticide toxicology was particularly interesting to me.”

After completing his doctorate, Dr. Yang went to Cornell University for postdoctoral work, then joined the Albany Medical College’s Institute of Comparative and Human Toxicology. In 1976, he joined the Biochemical Toxicology Department at the Mellon Institute/Union Carbide Corp. and had an adjunct faculty position with the University of Pittsburgh. He then returned to North Carolina to work with the National Institute of Environmental Health Sciences’ National Toxicology Program. In 1990, he came to Colorado State to assume the position of Department Head for the then-Department of Environmental Health.

Dr. Yang’s research interests include biologically based dose response modeling, physiologically based pharmacokinetic/pharmacodynamic (PBPK/PD) modeling, reaction network modeling, chemical mixture toxicology, toxicologic interactions, carcinogenesis/neuro-developmental toxicology, and risk assessment. Dr. Yang also established and developed the Quantitative and Computational Toxicology Group at CSU.

With his IPA award, Dr. Yang is working at the NCEA in Cincinnati on a variety of projects, including organizing and teaching a workshop on PBPK modeling; provision peer review toxicity values documents on total petroleum hydrocarbons; PBPK modeling of trihalomethanes in pregnant rats; leading efforts to write the text for “Risk Assessment of Chemical Mixtures”; and mentoring junior scientists and postdoctoral fellows at NCEA-Cin. The IPA is expected to continue for two years.

“Dr. Raymond S.H. Yang

“This honor is a reflection of his vast body of work in toxicology and the international reputation he has developed.”
Professor Brings Diverse Interests to CSU, Teaching Industrial Hygiene to Grad Students, Hearing Protection to High Schools, and Martial Arts to All

Like so many students working their way through college, Dr. Bill Brazile had many, many different jobs including groundskeeper, construction worker, car detailer, janitor, and hazardous waste technician. Other than his hazardous waste technician job, he can’t recall a single job where anyone even mentioned worker safety and health. While all those jobs helped pay the bills, more importantly they gave Dr. Brazile the foundation of a career dedicated to improving worker health and safety by showing him firsthand how working conditions could be improved through research, education, awareness, and training.

“I went into industrial hygiene because I like how the field allows me to apply science in a way that has a direct impact on keeping workers healthy and safe,” said Dr. Brazile, who is now an Assistant Professor in the Department of Environmental and Radiological Health Sciences (ERHS). “Today, the field has really expanded and we are working in so many fascinating areas, everything from ear buds and hearing loss to truck-bed liner chemicals and respiratory health.”

Dr. Brazile grew up in Trinidad, Colo., and received an associate’s degree in electronics before attending the University of Southern Colorado (now Colorado State University-Pueblo) where he received a bachelor’s degree in biology and master’s degree in applied natural sciences. He then entered the doctoral program in environmental health at Colorado State University, graduating in 1996 with an emphasis in industrial hygiene. His true desire was to teach, but he wanted to get “real-world” experience first, as well as become certified, so he accepted a position at Los Alamos National Laboratory where he planned to stay two or three years before returning to the academic world.

“The first two years, I was a health and safety oversight officer at hazardous materials and dealt with physical and chemical hazards,” said Dr. Brazile. “I was then offered a job as a hazardous waste site operations trainer and really learned a lot about how to develop and present training materials. I was then promoted to team leader for environmental training and finally moved into a position as environmental safety and health assessor. Before I knew it, 10 years had gone by.”

When a faculty position at ERHS opened up, Dr. Brazile decided to return to his first love, teaching, and is developing a robust research program with his graduate students and faculty colleagues. He recently completed a training manual for the Occupational Safety and Health Consultation Program funded by the Occupational Safety and Health Administration. Other projects currently under way or proposed for funding include a study of spray-on truck bed liners and sampling methods, noise evaluation at collegiate and professional football games, and a study with Dr. Jennifer Peel on hearing loss and the use of ear buds for audio devices, such as I-Pods and MP3 players. Dr. Brazile also takes his teaching outside of his CSU classrooms. Every semester, he gathers up his noise measurement instruments and travels to Mountain View High School in Loveland to talk to students about hearing damage and to measure I-Pod volumes.

“This is a huge concern to me because I see the potential for early hearing loss in so many of our young people,” said Dr. Brazile. “I want to create awareness for the students and their parents, and help educate them as to safe listening levels so they can enjoy their music and keep their hearing.” (Dr. Brazile notes that a safe volume level is 85 decibels, usually no more than 60 percent on the volume setting, depending on the device. Many of the devices he tests for students are set significantly above this level.)

Dr. Brazile reaches students in another way, as a teacher of traditional tae kwon do. He began to study the martial art in Los Alamos under Ron Geoffrion, one of five U.S. masters in the World Tae Kwon Do Association, and is now a second-degree black belt. He teaches twice a week at the CSU Recreation Center with his daughters, Madison and Mollie, both first-degree black belts, as his assistants. His class includes ERHS students from industrial hygiene, epidemiology, health physics, and other majors as well. The class, notes Dr. Brazile, is a social outlet for students in the Department.

“When I came to CSU, I knew that I wanted to teach, but I am now teaching in so many ways and it is unbelievably fulfilling,” said Dr. Brazile. “I teach graduate-level courses in occupational noise control and occupational safety, as well as an industrial hygiene laboratory course, and guest lecture in numerous classes. I get to work with high school students and not only help them understand hearing protection, but introduce them to the world of worker health and safety. And, with my daughters, I get to teach traditional tae kwon do, something that is a great passion of mine and I am so honored to be able to share that with others.”
From Brazil to Beirut and Austria to Hawaii, Dr. Ross Brownson is working around the world to improve public health through evidence-based public health programs and ongoing research projects that range from cancer to childhood obesity. He is on a mission to find ways to make healthy choices easier in an increasingly unhealthy world, and to help other public health professionals incorporate those choices into their culture.

“We spend billions of dollars on health-related research every year, but we tend to come around to prevention very slowly,” said Dr. Brownson, who is a Professor of Epidemiology in the School of Public Health at Saint Louis University (SLU) in Missouri and Director of that institution’s Prevention Research Center (PRC). “It’s easier to make unhealthy choices in the short term, but we pay a much higher price over the long term. Part of what we do at the PRC is find ways to make healthy choices easier.”

Dr. Brownson, who grew up hiking and hunting in the beautiful outdoors around Grand Junction, Colo., has always had an interest in science, biology and the environment. He received his bachelor’s degree in cellular biology and chemistry from the University of Montana before heading to Colorado State University where he completed his doctorate degree in environmental health and epidemiology in 1985, studying under Drs. John Reif and John Bagby. From there, he was offered a position in Missouri as the first chronic disease epidemiologist with the State Health Department.

“It was amazing to come into the health department and see the wealth of data that had been collected over the years in a cancer registry, but seldom used,” said Dr. Brownson. “It was a treasure trove of information that could be used to partially quantify the patterns and causes of cancer and other chronic diseases.”

Dr. Brownson rapidly moved through the State Health Department to bureau chief and division head, trying to keep his hand in research along with his administrative duties. He also established and maintained a mutually beneficial relationship with SLU and its School of Public Health, becoming an adjunct professor. In 1994, he left the State Health Department to put on multiple hats at SLU including Director of the Division of Epidemiology, Chair of the Department of Community Health, Director of the Prevention Research Center, and Professor of Epidemiology, all with the School of Public Health.

Early on, he saw a need to standardize public health training programs in a way that could benefit all communities, including those in the developing world. In 2003, Dr. Brownson published the text for the course Evidence-Based Public Health, and now teaches the course for public health practitioners at home and abroad.

“There is a huge need for training in public health, particularly because many of those in the field have no formal education or understanding of basic public health principles and practices,” said Dr. Brownson. “Our Evidence-Based Public Health course is an effective way to get these practices into the hands of those who are working in the field and, as a result, improve public health programs to the benefit of those communities served.”

Dr. Brownson notes that the training he received at Colorado State University gave him a good grounding in the sciences that, along with great mentoring and friendships with Drs. Reif and Bagby, helped him develop in his own career and realize his ambitions.

“The Department has an excellent learning environment with active, bright professors who showed me how satisfying working in public health and epidemiology could be,” said Dr. Brownson. “For me, now, being a college professor is the best job in the world. I’m working with interesting people, the students are vibrant and energetic, and we are solving problems that will make a real difference in people’s lives.”
STUDENT PROFILE

Alternative Break to New Orleans Opens Student’s Eyes to City’s Struggle

When Hurricane Katrina hit New Orleans on Aug. 29, 2005, as a Category 3 storm, few doubted its potential to do significant damage. When the skies cleared, and the extent of devastation was revealed, even those who predicted the worst were stunned by the lethal destruction left in the storm’s path. More than 1,800 people lost their lives and damage estimates exceeded $81 billion, with whole communities simply gone.

Nearly three years later, Ryan Autenrieth, a sophomore in the environmental health undergraduate program, went to New Orleans on an Alternative Winter Break sponsored by the Office of Student Leadership and Civil Engagement to help in the reconstruction of one of the worst-hit neighborhoods in the city, St. Bernard Parish.

“When I left Colorado, I didn’t know what to expect but hoped I could talk to the locals about their experiences, and help to make a positive impact in their lives,” said Autenrieth, who traveled to New Orleans with other CSU students. “As we drove in from the airport, I was amazed at how much damage there was. It looked like a war zone.”

Autenrieth and the other students were quickly put to work helping a family in the St. Bernard Parish rebuild their home. The family had lived in two small FEMA trailers since the hurricane with no running water, and had just about given up hope of being able to rebuild their home when the St. Bernard Project selected their home for rebuilding. Health concerns were taking their toll on the family, with one of the children suffering the acute respiratory attacks sometimes linked to high levels of formaldehyde. The crew got to work repairing infrastructure, installing insulation and backer board, as well as starting on drywall. Other volunteers with the project were working on electrical and plumbing.

“The father, Rudy, was an environmental engineer who had a fairly high-paying job before Katrina, and lost his job after the storm,” said Autenrieth. “He just kept telling us over and over again that we were angels, that it meant so much to he and his family that we were there. I think he just needed someone to talk to, too. Hurricane Katrina and the aftermath of the storm have been difficult for his family – to go from a secure life to a daily life of uncertainty and struggle – it’s been very emotional. But New Orleans also has a special spark, a certain vibe that people who live there want to help bring back, and so they stay and try to figure out a way to survive.”

Though the alternative break lasted only one week, Autenrieth said the experience changed his perspective on life.

“The whole experience created in me a stronger connection with other people, and showed me the importance of caring, supporting, and helping each other,” said Autenrieth. “Rudy was very inspirational to me and helped me to step back and set my priorities. He also asked me to tell his story, to share with others that people are still suffering in New Orleans, that they are not OK, and that they still need our help.”

Autenrieth hopes to take lessons learned in New Orleans to Costa Rica, where he is applying for a study abroad program in the fall. He’d also like to do an internship with the Public Health Service for his required EH internship. While not completely sure of his plans after graduation, last year, he took a semester off to complete EMT training and may still have his eye on medical school – though helping people mentally and physically through wilderness education, well, he’d love to do that, too. Whatever he chooses, one thing is certain, Autenrieth will be connecting to people, helping them through tough times, and just being there when they need a friend.

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“The whole experience created in me a stronger connection with other people, and showed me the importance of caring, supporting, and helping each other,” said Autenrieth. “Rudy was very inspirational to me and helped me to step back and set my priorities. He also asked me to tell his story, to share with others that people are still suffering in New Orleans, that they are not OK, and that they still need our help.”

Autenrieth hopes to take lessons learned in New Orleans to Costa Rica, where he is applying for a study abroad program in the fall. He’d also like to do an internship with the Public Health Service for his required EH internship. While not completely sure of his plans after graduation, last year, he took a semester off to complete EMT training and may still have his eye on medical school – though helping people mentally and physically through wilderness education, well, he’d love to do that, too. Whatever he chooses, one thing is certain, Autenrieth will be connecting to people, helping them through tough times, and just being there when they need a friend.

“When I left Colorado, I didn’t know what to expect but hoped I could talk to the locals about their experiences, and help to make a positive impact in their lives,” said Autenrieth, who traveled to New Orleans with other CSU students. “As we drove in from the airport, I was amazed at how much damage there was. It looked like a war zone.”

Autenrieth and the other students were quickly put to work helping a family in the St. Bernard Parish rebuild their home. The family had lived in two small FEMA trailers since the hurricane with no running water, and had just about given up hope of being able to rebuild their home when the St. Bernard Project selected their home for rebuilding. Health concerns were taking their toll on the family, with one of the children suffering the acute respiratory attacks sometimes linked to high levels of formaldehyde. The crew got to work repairing infrastructure, installing insulation and backer board, as well as starting on drywall. Other volunteers with the project were working on electrical and plumbing.

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A graduate from the Department of Environmental and Radiological Health Sciences has received one of the most prestigious awards given by the Colorado State Alumni Association. Dr. James B. Mitchell was the recipient of the William E. Morgan Alumni Achievement Award on Feb. 9 during the Colorado State University Distinguished Alumni Awards.

Dr. Mitchell, who received his doctorate degree in cellular radiation biology from the Department of Environmental and Radiological Health Sciences, joined the Radiation Oncology Branch of the National Cancer Institute in 1979 where he initiated a research program focused on improving cancer treatment with radiation.

He was appointed branch chief of the Radiation Biology Branch in 1993 and to the National Institutes of Health Senior Biomedical Research Service in 1998. Dr. Mitchell was honored with the 17th Radiation Research Award from the Radiation Research Society in 1989 and the John Yuhas Award for Outstanding Research in Radiation Biology in 2001.

“My whole career has focused on translational work where things we do in the lab are used in cancer patients treated with radiation,” said Dr. Mitchell. “We have a research hospital here where we conduct a host of clinical trials, so it is very rewarding to be working in such close proximity with cancer patients and seeing the impact of our work on their lives. Any small thing we can do to help makes all our work worthwhile.

“As I get older, I see more and more friends, colleagues, and family members dealing with the devastating consequences of cancer in their lives. It gives me even more motivation to do what I can do to help advance cancer treatment and, ultimately, cancer cures.”

The awards program, sponsored by the Colorado State Alumni Association, recognizes Colorado State alumni and friends whose professional work stands out, who have brought honor to the University or who have made significant contributions to the University or the community. Dr. Mitchell was nominated for the award by his youngest son, Alex, who is graduating from CSU this month with a degree in sociology.

Graduate Student Organization Forms to Support and Recruit

When Phoenix Mourning-Star arrived at Colorado State University last August, he found there were student organizations in the Department of Environmental and Radiological Health Sciences, but none were for graduate students in epidemiology. He had a “now I’m here, what do I do?” moment before getting together with fellow graduate student Meagan Flenniken to launch the Epidemiology Graduate Student Association.

“We initially saw the need for support and help on theses, dissertations, and graduate school requirements to make sure that we were successful, as well as a need for camaraderie among the graduate students in the Department,” said Mourning-Star. “But we soon changed our focus from group support to actual support of our research work.”

The students soon formed a splinter group, Society of Global Health Researchers, which reaches out to the Environmental Health Student Association members through a Students Recruiting Students program, and helps those students prepare for graduate school, as well as educate them about epidemiology as a potential major. The group also works in collaboration with students from microbiology, health and nutrition, and veterinary medicine to develop graduate research projects that cross paths between majors and departments, taking on the model of the University Supercluster to improve support from funding agencies.

“With shrinking budgets, it’s hard to get funding from the National Institutes of Health right now,” said Mourning-Star. “And graduate research programs are the first to get cut off. By putting together collaborative proposals we hope we can build a pot of money on our campus that will help support graduate students.”

Meanwhile, both Mourning-Star and Flenniken will head to Geneva, Switzerland, this summer for internships at the World Health Organization and the United Nations, respectively. Mourning-Star will be working on lead exposure assessments and Flenniken on a polio eradication study. The unpaid internships are sponsored through Duke University and the two students are currently fundraising to help pay internship costs and living expenses.
Gifts to the Department of Environmental and Radiological Health Sciences are used to fund undergraduate and graduate scholarships, support start-up and established research programs, and provide discretionary funds that are used where most needed. If you would like to make a donation in support of the Department’s needs and goals, please complete the form below and return with your gift. If you have any questions on making a donation to the Department, please contact Paul Maffey, Director of Development for the College of Veterinary Medicine and Biomedical Sciences, at paul.maffey@colostate.edu or (970) 491-3932. Please note that you also may make your donation at our secure online site as listed below.

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