

September 1, 2010

Dear Members of the EHS Community (especially our incoming students and scholars!),

Welcome to the beginning of another exciting new year in our Department. I am very pleased to provide this wrap-up of our last year and a preview of what is to come in 2010-2011.

Our students and other trainees. Last year, our Department graduated 38 students, 35 with MPH degrees and 3 with PhD degrees. Despite the continued constraints of a tough job market, our 2010 graduates, with their many special skills (like the proper fit testing and use of respirators [see photo!]) have continued to find great jobs, including, for example, at Chem Risk, the CDC (as an ASPH-CDC-NIOSH Fellow), Chevron, Shell, Samsung, Intel, U.S. EPA, University of Utah and the University of Memphis. During the current summer, 42 of our continuing MPH degree students have been working in summer internships around the country and world, including county health departments, hospitals, industry (Abbot Laboratories, BP, Chevron, NSF International) and global destinations in Namibia, Ecuador, Egypt, Ghana and India.



Amongst the many winners of student and trainee awards over the past year have been *Vivek Patel* (an American Industrial Hygiene Foundation Award); *Paula Johnson* (the Warren Cook Award); *Kevin Abernethy* (the Michigan Industrial Hygiene Student Association Award), *Eugene Yen* (UM Outstanding Student Leader); *Olivia Anderson* (Michigan Dietetic Association Best Student Poster Award); *Robert Kelly* (UMSPH Best MPH Poster Award), *Laurie Svoboda* (UMSPH Toxicology Symposium Best Poster Award), *Monica Silver* (ASPH/EPA Environmental Health Fellowship) and *Stacy Endres* (ASPH/CDC Public Health Fellow). *Jalonne White-Newsome* was inducted into the Edward Bouchet national honor society. Professor Basu's post-doctoral fellow, *Dong-Ha Nam*, won the best presentation award at the Michigan Society of Toxicology 2009 annual meeting. Many more students won Rackham and other scholarships & travel awards, continuing a long history of excellence.

The 69 new students who are just arriving hail from both US coasts and the Midwest as well as the countries of Taiwan, Korea, India, Israel, China. They majored in just about every discipline of the health sciences as well as a broad array of other fields, such as Biology, Chemistry, Anthropology, Chemical Engineering, Nutrition, Environmental Sciences, Biochemistry, and Physiology. Of particular importance has been the recruitment of our top new doctoral student prospects, the lifeblood of many of our best faculty research projects. Of the 10 students offered funding, we were able to recruit 8, giving us a yield of 80%--the continuation of an outstanding record over the last few years and a reflection of our status as a premier destination for training amongst the very best students in the nation.

Organized student life has continued to play a major role in the EHS community, with continuation of our very active UM *Industrial Hygiene Student Association*, our *Student Activists for Nutrition* group (which has embraced the integration of their education with new food sustainability principles) and the Department-wide *Environmental Health Student Association*, which has organized our crowded and successful downtown winter holiday parties for each of the last 3 years.

Our Faculty and Other Scholars. Our faculty roster has continued to grow. Since coming from the Harvard School of Public Health in 2008 as the new Director of our Human Nutrition Program, *Karen Peterson* has worked tirelessly to re-vamp the Program and build University-wide collaborations. Most recently, she worked with EHS to recruit *Eduardo Villamor*, also from Harvard, who just finished his first year at UMSPH as Associate Professor. Eduardo is a superb nutritional epidemiologist and

physician conducting high-impact research on nutrition and early life development. This past January saw the arrival of *Kwangseog Ahn*, a new Lecturer in Industrial Hygiene, who trained at UNC and U Mass-Lowell. New research track faculty appointments have included *Rachel Davis*, who conducts research on culture, dietary behaviors and chronic disease management among Latino and African American populations; and *Masako Morishita*, whose research focuses on investigations of source-to-receptor pathways and the health effects of airborne toxicants. Finally, congratulations to *Marie O'Neill*, who was just approved for promotion to Associate Professor with tenure, and we are very pleased to welcome *Andrew Maynard*, one of the world's foremost experts in nanomaterial risk assessment, who has just arrived in our Department as the first *Charles and Rita Gelman* Risk Science Professor and Director of the SPH Risk Science Center.

Teaching: We celebrate our faculty who have been successful in the classroom. Faculty with high-scoring (≥ 4.5 on a 5 pt scale) courses and/or teacher evaluations in the past year have included *Niladri Basu* (for 2 courses: Ecological Toxicology and Research & Communication in the Environmental Health Sciences), *Stuart Batterman* (for Environmental Management for Hazardous Substances—that's him supervising in the photo); *Suzanne Cole* (for 4 courses!!: Maternal & Child Nutrition, Metabolism of Vitamins and Minerals, Nutrition Assessment and Community Nutrition); *Dana Dolinoy* and *Laura Rozek* (for Genomics and Epigenomics in Environmental Health), *Al Franzblau* (for 2 courses: Occupational and Environmental Diseases and Genes and the Environment), yours truly (*Howard Hu*; for the on-line certificate version of Principles of Environmental Health Sciences); *Craig Harris* (for 2 courses: Biochemical and Molecular Toxicology and Mechanisms of Developmental Toxicology); *Olivier Jolliet* (for 2 courses: Life Cycle Assessment: Human Health and Environmental Impacts and Principles of Risk Assessment), *Rita Loch-Caruso* (for Mechanisms of Reproductive Toxicology); *Mats Ljungman* (for Radiation Biology), *Peter Mancuso* (for Pathophysiology of Obesity), *John Meeker* (for Physical Hazards), *Joseph Miklos* (for Principles of Radiological Health), *Marie O'Neill* (for Environmental Epidemiology); *Sung Kyun Park* (for Data Analysis for Environmental Epidemiology); *Karen Peterson* (for Physical Growth & Maturation), *Tom Robins* (for Principles of Exposure Assessment), *Jim Vincent* (thanks for coming out of retirement for this one, Jim!—for Introduction to Occupational & Environmental Health), *Chuanwu Xi* (for Microbiology in Environmental Health); and *Ted Zellers* (for 2 courses: Environmental Sampling & Analysis Laboratory and Evaluation of Chemical Hazards).. Finally, we are extremely proud of *Ted Zellers* for winning the 2010 SPH Teacher of the Year Award---a well-deserved honor based on a long series of successes and testimonials from past trainees.



Research: Our new and existing faculty and scholars have been at the cutting edge of research. Our core faculty published over 130 original reports in the peer-reviewed literature in the past year, appearing in high-impact journals ranging from basic, environmental and public health science to clinical medicine. We are very proud of our faculty who have won the prestigious NIEHS Outstanding New Environmental Scientist (ONES) R01 research grant awards two years in a row: *Marie O'Neill* (in 2008, for " Air Pollution, Inflammation and Preterm Birth: A Mechanistic Study in Mexico City") and *Dana Dolinoy* (in 2009, for " In Utero Exposure to Bisphenol A: Effects on the Fetal Epigenome"). In addition, *Sung Kyun Park* won an NIEHS K01 career development award.(for " Environment, Novel Aging Outcomes and Genetics").

In terms of other new EHS-based Center and other major new research grants, *Karen Peterson* is the PI and several other faculty are co-investigators on a new NIEHS P20 formative Children's Environmental Health Research Center grant on the theme of "Perinatal Exposures, Epigenetics, Child Obesity and Sexual Maturation". *Karen* is also Co-Director of the newly funded NIDDK P30 Michigan Nutrition and Obesity Center, a collaboration of SPH with the Schools of Medicine and Kinesiology. *John Meeker* and *Rita Loch-Caruso* are each the Leader of projects in a newly-funded NIEHS Superfund Research Program Project focusing on endocrine disruptors and prematurity (based at Northeastern University). *Stuart Batterman* is the PI of a new EPA "Roadway" research grant. *Tim Dvonch* is the PI of one of the projects of a new to-be-funded EPA "Clean Air Research Center" (based

in Michigan State University). Yours truly (*Howard Hu*) and *Martin Philbert* are the PI and co-PI of an application to the NIEHS P30 Core Centers program that just received the highest score of all applications reviewed by the NIH study section this past month. Entitled “Lifestage Exposures and Adult Disease”, the application involves 41 UM faculty members, 14 of whom are EHS faculty members, and an innovative focus on epigenetic regulation, oxidative stress, and endocrine disruption as mechanisms that may drive a variety of disease processes caused by environmental agents. Many more faculty secured new research grants and contracts, much more than can be fit into this letter, and they build off of a robust base of other long-running research, such as the many projects on the atmospheric fate and transport of mercury in *Jerry Keeler’s* Air Quality Laboratory and research conducted by *Tom Robins* et al. on the impacts of air pollution in Detroit on asthma in children

Overall, we have seen our research expenditures grow 32% between 2007 and 2009. The impact of our publications continues to increase, with recognition regularly coming in the form of awards, such as the 2009 Distinguished Research Award from the Alexander von Humboldt Foundation in Germany (to *Jerome Nriagu*), and the Ted Kennedy Family Team Excellence Award (to *Ted Zellers*).



Partnerships. EHS has become one of the major partners of the new *UM Center for Global Health*. Five EHS faculty members and 3 EHS doctoral students were involved in organizing a workshop on “Climate Change Impacts on Health in India---Research Needs” co-sponsored by the UM Center for Global Health, the US Centers for Disease Control, and the Indian Council for Medical Research that took place in Goa, India in August of 2009. EHS faculty members are also involved in the Center’s next international workshop, which will take place this October in Cairo on the theme of “Cancer in the Middle-East”.

Based on competitive review, the UM Center for Global Health has sponsored new research activities by *Eduardo Villamor* and *Marie O’Neill*, and given our faculty’s involvement in research on every major continent (for example, that’s *Professor Basu* in the photo working on his study of mining waste and exposure to metals amongst indigenous people in Guatemala) and the Center’s identification of global environmental health as one of its four major areas of focus, we will continue to grow along with the Center. With new grant programs and world-wide connections, this partnership promises to promote a new generation of highly productive international collaborations.

We are increasing our research and training initiatives with *NSF International*, the not-for-profit environmental testing and certification company right next door in Ann Arbor that was founded by members of our faculty over 50 years ago. In addition to endowing the *NSF Department Chair* last year, NSF International has become a collaborating laboratory for our environmental biomarker research and remains a major destination for our student internships and employment opportunities. While visiting a water purification center in a remote village in Tianjin municipality in China this summer (I was there to work on a potential new research project on the neurodevelopmental effects of living in an area with fluoride-contaminated drinking water), I was delighted to see the NSF logo on a reverse osmosis water purification machine (Figure; to my left is Dr. Honglian Liu, Director, Institute for Environmental Health Sciences, Tianjin Centers for Disease Control, a new partner for EHS global research and training).



Now that the SPH *Center for Risk Science* has recruited its first permanent director (*Andrew Maynard*, noted above under EHS Faculty), EHS faculty are poised to build on this natural partnership to tackle the thorny issues of risk assessment and communication with a strong foundation in science. Few leaders are as well-qualified, articulate or versed in modern communication tools to do so as Andrew—check out his blog: <http://2020science.org/>.

We have also emerged as a partner of the *UM Graham Environmental Sustainability Institute*, of which an EHS doctoral student, *Katie Bush*, is a Graham Fellow, and EHS is in the process of developing a new training subplan on sustainability under the direction of Professor *Stuart Batterman*.

Our staff. Led ably by our long-term Head Administrator, *Patrice Somerville*, our staff has continued to evolve and grow to serve the ever-changing needs of our faculty and students. Given the accelerating pace of our grants, she was relieved to hire a new grants administrator, *Richard Szapara*. We were sad to see our popular *Margaret Cabaj* retire. In addition to continuing to provide outstanding guidance to our students and faculty on our curriculum, our student coordinator, *Sue Crawford*, endowed a new student scholarship fund last year (the first such fund established by a staff member at SPH). Unsurprisingly, given her popularity amongst students, it has quickly attracted many other donors amongst our alumni. Finally, we are extremely proud of our grants administrator *Brenda Hadley*, who won one of the 2010 School of Public Health Excellence in Staff Service awards. Congratulations, Brenda!

Our future. Last year, guided by a special EHS committee chaired by *Professor Al Franzblau*, we completed our second strategic planning process in six years. Today, with our continued rapid evolution and growth, we are very well positioned to lead science and education in some of the most important areas in environmental health sciences. They range, for example, from the nano (read about *Professor Philbert's* work in nanoscale materials: <http://research.sph.umich.edu/index.php?q=19>) to the molecular (hear a radio podcast of *Professor Dolinoy* discussing "what is epigenetics?" <http://www.wnyc.org/shows/lopat/episodes/2009/12/04/segments/145489>) to the regional (see the Michigan Dioxin Study website: <http://www.sph.umich.edu/dioxin/>) to the global (see a video of yours truly discussing our emerging work in global climate change: <http://lecb.physics.lsa.umich.edu/CWIS/browser.php?ResourceId=1665>). Critical to these efforts will be training grants that supply many of the students and fellows that drive much of the research, such as our long-running NIOSH Education and Research Center led for the past 10 years by *Professor Tom Robins* (and soon to be taken over by *Professor Stuart Batterman*) and our long-running NIEHS Multi-disciplinary Toxicology Training Grant led by *Professor Rita Loch-Caruso*. EHS is also now the home of a new Aging and Public Health Training Grant from the National Institute of Aging, reflecting a strong commitment of EHS faculty and students to studying environmental impacts on aging-related diseases.

All of this also needs to be accompanied by major changes in the way we train our students---we simply cannot continue to keep loading more requirements within the time constraints of our educational offerings---and our Committees devoted to graduate education, chaired by Professors *Stuart Batterman* (MPH) and *Rudy Richardson* (PhD/MS) are in the process of creating integrated and innovative approaches to education based on transdisciplinary courses, case-studies, multimedia tools, field sites, and other methods. All of these changes, developments and new offerings will have to be interpreted for our applicants and the next generation of potential students by a very active Admissions and Recruitment Committee ably co-chaired by Professors *Peter Mancuso* and *Al Franzblau*.

Finally, like all of the other faculty, staff and students at SPH, we eagerly anticipate the outcome of the search for a new Dean for SPH. Surely, she or he will take the helm at an exciting, challenging and busy time for EHS as well as the rest of the School.

Sincerely yours,



Howard Hu, M.D., M.P.H., Sc.D.