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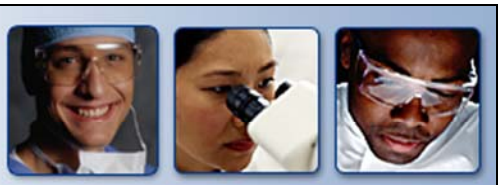
November 2005



NIEHS Spotlight

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NIEHS Spotlight

NIEHS Renews Agreement with Korea NTP

By Colleen Chandler

NIEHS Director David Schwartz and Seung-Hee Kim, director of the Toxicological Research Department at the Korea National Toxicology Program, signed an agreement that will allow the NIEHS and the National Toxicology Program to continue assisting its Korean counterpart. Before the signing, Kim delivered a presentation to NIEHS staff summarizing the Korea NTP research and accomplishments. Much of the KNTP focus is on medicinal herbs.

NIEHS Director David Schwartz and Seung-Hee Kim. (Photo by Steve McCaw, Image Associates

Traditional Chinese herbal medicine is widely used throughout Asia. According to a report given to the NTP in 1994 by Korean officials, there are 660 herbs, minerals and other material used in Korean herbal medicine. North Korea has 446, Japan has 117, China has 564, and Taiwan has 364. Among the herbs the Korea NTP has studied are Pueriaria Root, Glycyrrhizan Liccorice Root, Pinellia Tuber, Safflower Seed, Artistolochiae Radix.

NIEHS Hosts Strategic Planning Forum in Chapel Hill

By Blondell Peterson

The Strategic Planning Forum held at the Chapel Hill Sheraton Oct. 17-18 drew a crowd of approximately 90 participants. Sixty-six were extramural scientists and advocates of the NIEHS mission.

Sheila Newton, director of the Office of Science Policy and Planning, said all the discussions were focused, lively and energetic. She credited that to the 24 seasoned discussion leaders who lead the breakout groups and presented summaries of the 1-½ hour discussions at three plenaries. The 24 breakout groups consisted of no more than 12 people.

Newton said all of the participants were extremely engaged, and there was lots of good discussion. "People told me how much they learned by having an opportunity to be in a group with people that work in different disciplines," she said.

The first cycle of breakout sessions was the meatiest, according to Newton, because participants were asked to think about NIEHS research in a global way—not just their own individual research discipline. The questions given to the groups dealt with using environmental exposures to understand human biology—what's actually going on in the cells.

Newton said the second cycle of breakout discussions was intended to move toward using environmental sciences and exposures to understanding human diseases. After the plenary, the groups were mixed up and sent back out to talk about exposure sciences.

"If we're going to use environmental exposures to study human disease and human biology then we need to look at the needs and the research challenges in making sure we have the ability to track exposures in human systems," she said. "We also need to look at the infrastructure investment needs."

In cycle three, according to Newton, the groups tackled two overarching issues that included elements of issues discussed in the first two sessions—global health and training.

"The last thing we talked about was training because you have to make sure that your programs are fulfilling your needs to train people to do all of the things we talked about in the three sessions," said Newton.

"The results of all the discussions are being pulled together in a proceedings document. A contract science writer will use all the summaries and synthesize all the main ideas," Newton said. She hopes to get the outline of the proceedings so that she can present the results at a November NIEHS town meeting. Newton will also present the summary and a strategic plan status report to the Public Interest Liaison Group in Crystal City, Virginia on Nov. 29.

Newton said once she gets the proceedings document, management will be in a position to start outlining what the plan is going to look like and when it will be circulated.

Director Hosts Internal Town Meetings

By Blondell Peterson

NIEHS Director David Schwartz hosted five internal town hall meetings during the months of September and October. According to Allen Dearry, director of DRCPT, since it's impossible to meet with each individual, Schwartz wanted to establish two-way dialog with employees who are not managers.

"The Institute has a history of having external town meetings," Dearry said. "They have been worthwhile in getting input from the public and getting ideas about research directions. These are analogous in goals. I think there is a need to establish that openness between the director and the employees, and these internal town hall meetings clearly met that purpose."

According to Dearry, other objectives for the meetings were to enhance employee morale and discuss ways to provide incentives. Although some issues will be addressed in the strategic plan, Schwartz also wanted to elaborate on what he feels is important in the field of environmental science. Specifically, the linking of basic and clinical science, global environmental health and training are top priorities for NIEHS.

Since the meetings NIEHS staff have formed a work-life committee to address some questions generated in the meetings such as,
*What are the incentives?
*Should managers think of different or more ways to reward employees?
*What is the process?
*How can we make employees feel they are rewarded properly for good contributions?

For example, one possibility is having a day to recognize research or scientific accomplishments of DIR and extramural scientists. "This will give us a chance to acknowledge the accomplishments or outcomes of the investments we have made," Dearry said.

Some employees asked questions regarding restructuring of the institute, according to Dearry. The director's response was based on the goals for the institute as they will be outlined in the strategic plan. "Dr. Schwartz is looking at the Institute across the board as a whole," he said. "The question he is asking is, 'Does the structure that we have now enable us to do the best job of supporting first class, high impact, interdisciplinary research in environmental health science, both internally as well as externally?''

Rodent Genetics Conference

By Diane Klotz
To introduce the scientific community to the efforts of the Center for Rodent Genetics, or CRG, Bill Schrader and Diane Klotz (director and assistant of the CRG, respectively) organized its first annual conference, "Genetics and Genomics of Environmental Disease Models."

The focus of the conference, which was held Oct. 6-7 in the Rodbell auditorium, was to 1) underscore the importance of understanding the impact of gene-environment interaction on human health and disease, and 2) demonstrate the importance of using mouse models to understand the process through which the environment affects disease outcomes.

The first session of the conference was organized to highlight research, supported by NIEHS both intramurally and extramurally, that has used mouse orthologs of human genes from the Environmental Genome Project to bridge the fields of toxicology and genetics. The second session was designed to show how researchers use mouse models of human disease to understand the genetics involved in the development of pulmonary diseases due to environmental exposures. The third session reported the results of the first year of the "Resequencing Project" and discussed how these data can be analyzed and utilized by the research community.

As a primary project, the NIEHS is currently overseeing the Resequencing Project to sequence the genomes of 15 diverse mouse strains for use understanding individual genetic susceptibility to environmentally-impacted diseases.

Conference attendees were scientists from NIEHS as well as regional and national researchers. The breadth of research carried out by the attendees was indicative of the broad interest in the emerging field of toxicogenomics and the relationship between genetics and environmental disease.

Bill Schrader, right, director of the NIEHS Center for Rodent Genetics, chats with George Weinstock, professor of molecular and human genetics at Baylor College of Medicine and member of the CRG advisory group. (Photo by Steve McCaw, Image Associates)

While the conference program demonstrated the important work that is being done in these fields, it also identified a great need within the fields. As discussions following many of the presentations indicated, opportunities are being missed to use modern genetics to link human disease to environmental exposures. In particular there are not enough valid mouse models of specific human diseases. A possible step to remedy this was discussed in the final session of the conference, a roundtable discussion about how best to make the data from the Resequencing Project available to, and user-friendly for, the entire scientific community. While it was agreed that the data should be made available in both the raw and analyzed forms (useful to both geneticists and bioinformaticians), one discussion centered around the educational opportunity available to the NIEHS and the CRG.

By creating a database that is both user-friendly and educational, the NIEHS has the opportunity to assist scientists who, due to lack of information or skills, may not have considered examining the genetics of, or creating an animal model of, their disease of interest in establishing a unique bridge between the fields of genetics and environmental disease.

In 2004, NIEHS created the CRG to facilitate a concerted approach to the use of genetically-defined experimental animals for projects unique to the mission of the NIEHS and the National Toxicology Program. To this end, the initial goals of the CRG are:

- To foster increased, improved and more predictive genetics-based models of environment-disease relationships, and
- To serve as a national conduit for defined lines for study of environmental agents and disease susceptibility.

More information on the Resequencing Project can be found at http://www.niehs.nih.gov/crg . More information about the Environmental Genome Project can be found at http://www.niehs.nih.gov/envgenom/home.htm.

For more information on the recent CRG conference, visit http://www-apps.niehs.nih.gov/conferences/od/rgc2005/index.cfm.

Olopade Awarded MacArthur "Genius" Grant

By Colleen Chandler

NIEHS grantee Olufunmilayo Falusi Olopade, an oncologist, founder and director of the Cancer Risk Clinic, and professor of medicine and human genetics at the University of Chicago, was named a MacArthur Fellow for 2005.

Olufunmilayo Falusi Olopade (Photo Courtesy of the University of Chicago)

Olopade is one of four investigators in a large multi-year, cross-disciplinary breast-cancer study to identify genetic and environmental factors that contribute to breast cancer. The study will examine the role of genes, lifestyle, socioeconomics, social interaction and breast cancer. The study is an initiative under the NIH Centers of Population Health and Health Disparities, a $60 million project funded over five years and initiated by NIEHS, said Fred Tyson, program administrator for DERT's Population Health and Susceptibility Branch. NIEHS will contribute $20 million over the five-year course of the project to fund eight such centers nationwide.

Olopade, from Nigeria, is one of 24 people who were selected by the John D. and Catherine T. MacArthur Foundation. The award was $500,000. She was selected for "translating findings on the molecular genetics of breast cancer in African-American women into innovative clinical practices," said a University of Chicago press release.

Olopade's research focuses on women of African ancestry, who have a substantially higher risk for the more aggressive breast cancer and who are more likely to be diagnosed at a younger age. According to an article in *Medicine on the Midway,* a University of Chicago publication, African-American women are 50 percent more likely to get breast cancer before menopause. About half of the breast cancer cases among black women under age 50 are estrogen-receptor negative, which means some of the most promising treatments that target estrogen receptors will not be effective. Her research found that breast cancer in African women often produce a different gene pattern than that found in Caucasian women, and tumors in African women are more likely to originate from a different group of cells within the breast.

Her clinical interests include finding and testing improved methods for predicting, preventing and early detection of cancer for moderate- and high-risk patients. She founded the Cancer Risk Clinic in 1992 at University of Chicago Hospitals.

NIEHS Researchers Featured: PBS, NPR and Newsweek

Dan Baden, a marine biologist at UNC Wilmington (UNC-TV)

Fred Tyson, DERT grants administrator (UNC-TV)

Red Tide

NIEHS Grants Administrator Fred Tyson and grantee Dan Baden, a marine biologist at the University of North Carolina at Wilmington, were featured Oct. 11 on UNC TV's *North Carolina Now*. Tyson and Baden discussed two toxins produced by Florida red tide that may in the future be the basis for new treatment for cystic fibrosis.

Breast Cancer

Dale Sandler and Carissa Dixon were featured guests on the live broadcast of PowerPoint Oct. 23. The Emmy award winning host, Carmen Burns, led the discussion about breast cancer and the Sister Study, an NIEHS epidemiology study still recruiting toward its goal of 50,000 women who have a sister with breast cancer.. PowerPoint is the first ever national public radio information program addressing issues affecting the African-American community.

Built Environment

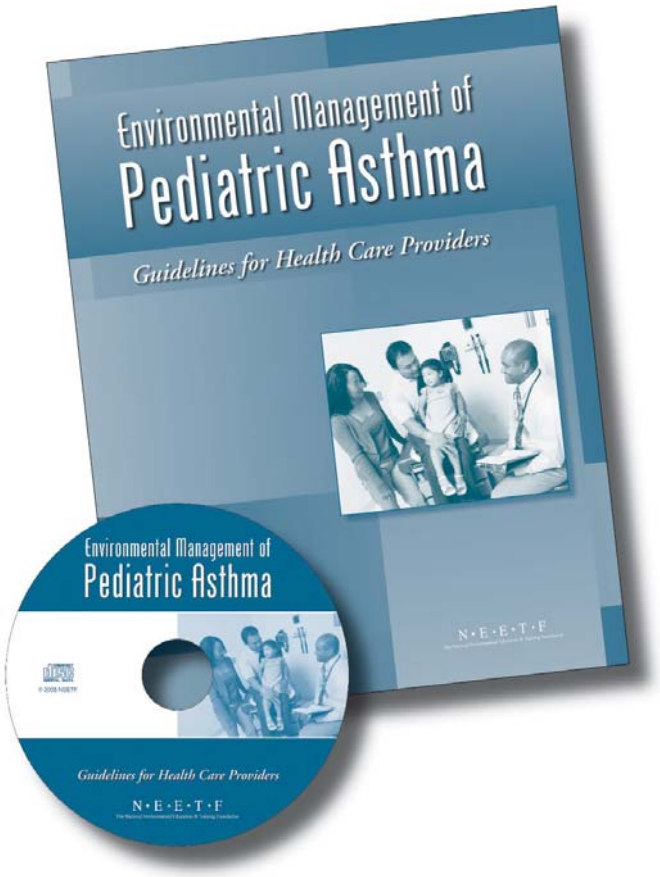
Allen Dearry, DRCPT director, was quoted in an article in *Newsweek* touting the benefits of residential communities designed to encourage an active lifestyle. Walking, Dearry said in the article, is a beneficial activity that people will undertake if given the opportunity. "Designing Heart-Healthy Communities" appeared in the Oct. 3 issue.

Bridging Medical Information Gap on Environmental Health

By Colleen Chandler

New guidelines issued by the National Environmental Education & Training Foundation will provide pediatric healthcare providers with new educational tools for recognizing and reducing environmental triggers for asthma.

NIEHS funded the development of the guidelines, *Environmental Management of Pediatric Asthma: Guidelines for Health Care Providers*. The guidelines are based on the National Asthma Education and Prevention Program Guidelines for the Diagnosis and Management of Asthma, and include practical strategies for managing asthma that can be included in educational curricula and clinical practices.



"As a physician who treats patients with asthma and as a parent of an asthmatic child, I understand the importance of tools such as these to ensure environmental factors are considered as an aid in the diagnosis, treatment and prevention of asthma," said NIEHS Director David A. Schwartz. "There are simple steps parents can take to reduce allergens that trigger asthma in their children. By teaching parents how to reduce allergens, healthcare providers can create a partnership that involves the parents in the process of improving their child's health."

The guidelines are built on current 'best practices,' including competencies for managing environmental asthma triggers in pediatric care, a user-friendly environmental history form, intervention guidelines, patient flyers that can be reproduced and distributed, and a list of references.

The NIEHS journal, *Environmental Health Perspectives*, recently published a study on the need from more training for doctors and nurses on environmental health to prepare them to prevent, recognize and manage diseases with environmental exposure components.

The complete guidelines are available at http://www.neetf.org/Health/asthma.htm.

Science Notebook

Constella Group Awarded $42.3 Million Contract for Clinical Research

By Colleen Chandler
Durham-based Constella Group was been awarded $42.3 million over 10 years to conduct a variety of studies for NIEHS. According to a Constella press release, the studies will likely range from intervention trials to case-control and prospective observational studies.

In the past, Constella has provided a wide range of professional services and solutions to NIEHS under other contracts, but this is the first time it will provide clinical research services.

“NIEHS has entrusted us to help it achieve its environmental health mission for a number of years, and we are pleased to play a pivotal role in a transformational program that we anticipate will have key impacts on environmental health, including new developments in gene-environment interactions and in the areas of mechanisms of disease, disease prevention, treatment enhancement and the promotion of healthy lifestyles,” said Constella Group Chairman and CEO Donald Holzworth.

According to a press release issued by Constella, the contract will encompass many individual studies to be designed and implemented each year. Under the contract, Constella will plan and develop the studies, facilitate the regulatory process, subject sampling, oversee and monitor patient treatments and lifestyle interventions, administer questionnaires, collect and test environmental and biological samples, managing medical records and data, biostatistical anaylsis, bioinformatics and reporting.

The contract will be handled in Constella’s Health Sciences division, one of four within the company.

Panel Analyzes Feasibility of Twin Registry

By Blondell Peterson
A panel of twin research and registry experts convened in a day-long meeting at Nottingham Hall Oct. 21 to help determine the feasibility of establishing a national U.S. twin registry. The panel also discussed establishing three smaller registries for twins with type 1 diabetes, systemic lupus erythematosus and multiple

sclerosis. Scientists will use the resources to investigate genetic susceptibility and environmental influences in complex diseases.

The meeting was the first of three expert panel meetings to be held during an 18-month study. Pat Chulada and Perry Blackshear, both NIEHS scientists in the Office of Clinical Research, are conducting the study along with a team of experts assembled by Alpha Gamma Technologies, Inc. in Raleigh. The team includes Linda Corey and Lenn Murelle, two past co-directors of the Mid-Atlantic Twin Registry and Vani Vannappagari, an epidemiologist from AGTI.

In the first major objective of the study, scientists will estimate and describe the twin population in the U.S. in order to estimate the potential size and composition of a national population-based registry. According to Chulada, there has been no systematic attempt to analyze the U.S. twin population to date, and this will be the first attempt to do so.

Based on vital statistics and other data, the AGTI team estimated there are approximately 5 million individual twins in the U.S., Chulada said. The team is further refining these statistics to include zygosity, age, gender, race and ethnicity, co-twin survival and other twin demographics, according to Chulada. Other objectives of the study are to develop optimal methods for ascertaining and enrolling twins, to conduct a cost-benefit analysis, and to investigate alternatives for creating or expanding U.S. twin resources, if a national U.S. twin registry is deemed feasible. Chulada said a second panel of experts will convene here in November to explore the ethical, legal and social climate for twin research and determine how this may impact methods used to identify twin pairs, and contact, recruit and collect data from them.

Pat Chulada and twin sister, Pam.(Courtesy Photo)

In the statement of work that facilitated the panel meeting, Chulada outlined how the NIEHS mission is a perfect environment for a twin study. The mission statement reads, "The mission of the NIEHS is to reduce the burden of environmentally associated disease and dysfunction by defining: 1) how environmental exposures affect our health; 2) how individuals differ in their susceptibility to these exposures; and 3) how these susceptibilities change over time.

"Twin studies can be powerful tools to isolate the genetic and environmental components of a disease," she said. "NIEHS would promote its mission by improving resources for twin studies. All institutes could benefit and would likely be interested in participating."

Panel Confirms Previous Findings on DEHP

By Colleen Chandler

An expert panel convened Oct. 10-12 to review research on reproductive and developmental toxicity of DEHP a chemical commonly found in plastic, including building and car products, clothing, food packaging, children's products and some medical devices, concluded that not much has changed since a similar panel looked at the issues in 2000.

The Center for the Evaluation of Risks to Human Reproduction, part of the National Toxicology Program, convened the panel to review the estimated 150 papers that were published on human exposure and reproductive or developmental toxicity of di(2-ethylhexyl)phthalate since the first panel met in 2000.

The panel concluded:

- For the general adult population, there is minimal concern of exposure
- For healthy infants and toddlers, there is some concern that exposure can adversely impact reproductive development in males at least 1 year old, but there is concern that exposure can adversely affect reproductive development in infants less than 1 year old.
- For critically ill infants, there is serious concern that certain exposure elevels may adversely affect male reproductive tract development.

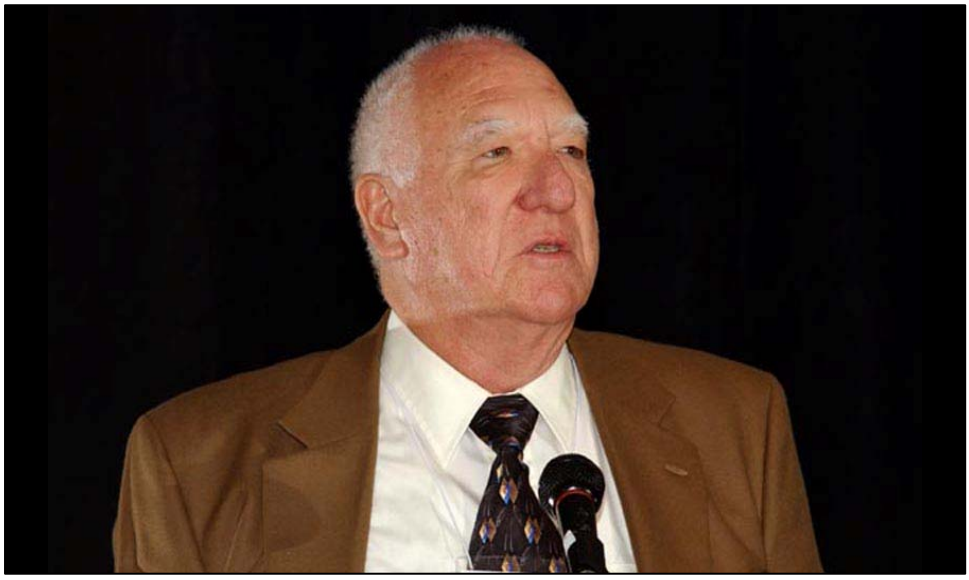
The panel also concluded there is some concern for baby boys whose mothers were exposed to DEHP during pregnancy.

The panel was made up of 11 scientists, who looked at the quality, quantity and strength of the evidence, and identified data gaps and research needs. The final report will be available from the CERHR web page at http://cerhr.niehs.nih.gov/. Public comments will be solicited via the Federal register.

Award-winning Researcher Gerald Wogan Speaks at NIEHS

By Colleen Chandler

Like a detective story, it was a mystery of sorts that drew Gerald Wogan, an MIT professor and NIEHS-funded researcher, into the scientific intricacies of aflatoxin: What killed more than 100,000 young turkeys within a few months in England in the 1960s?



Gerald Wogan (Photo by Steve McCaw, Image Associates)

The answer, initially deemed "Turkey X disease" but later identified as aflatoxin, led Wogan down a 25-year path of multi-disciplinary research. Ben Van Houten, who wears two hats at NIEHS as chief of the Program Analysis Branch in DERT and as principal investigator in DIR's Laboratory of Molecular Genetics, said Wogan's scientific journey is a remarkable example of scientific discovery, going from the

chemistry of the compound to human cancer.

Wogan presented "Identification of Aflatoxin as a Human Liver Carcinogen: The Role of Molecular Biomarkers in Risk Characterization" Oct. 10 as part of the NIEHS Distinguished Lecture Series.

Aflatoxin is a natural product made by a common fungus, *Aspergillus flavus*. This mold grows on food crops after they are harvested but before they dry. Aflatoxin is metabolized by humans, and this active form can attack DNA and is suspected of causing liver cancer in humans. It is especially problematic in developing countries where agricultural standards are less stringent than in the United States.

Wogan's reseach included elements of chemistry and biology as he scrutinized how aflatoxin is metabolized and forms specific DNA adducts. His research also included epidemiology as he and colleagues studied how aflatoxin is linked to liver cancer in China and other parts of Asia.

Van Houten described Wogan as "very gracious," citing as the most important aspect of his research career the success of researchers he trained over the years who developed independent but related lines of research that contribute to the body of knowledge now surrounding aflatoxin.

Wogan received the 2005 General Motors Cancer Research Award for his work. NIEHS funded Wogan's research over the last three decades. For more information on Wogan's research go to http://web.mit.edu/newsoffice/2005/mott-0608.html.

The NIEHS/EPA Superfund Basic Research Program (SBRP) Hosts the 2004 Karen Wetterhahn Memorial Awardee Seminar

By Robin Mackar

Anne Spuches, (Photo by Steve McCaw, Image Associates)

On October 25, Dr. Anne Spuches, the recipient of the seventh annual 2004 Karen Wetterhahn Memorial award shared her latest research on the glucocorticoid receptor with the staff at NIEHS. Her talk, *Thermodynamics of Zinc, Cobalt and Arsenic Binding to the DNA Binding Domain of Glucocorticoid Receptor: The Good, the Bad and the Ugly*, focused on how new knowledge and techniques are helping to build models to understand how metals, such as arsenic can impact cellular processes. This research may eventually help in the design of new, more effective, chelating agents for the treatment of arsenic poisoning.

The Superfund Basic Research Program presented the award to Dr. Spuches last November at the SBRP Annual Meeting at the University of Washington in Seattle, Washington. Dr. Spuches is a Post-Doctoral Fellow at Dartmouth College, working with Professor Dean E. Wilcox. She is participating in interdisciplinary studies addressing the environmental and human health effects of arsenic. She also mentors and tutors first and second year chemistry majors.

The annual award was established by SBRP as a way of honoring the life and scientific accomplishments of Dr. Karen Wetterhahn,

who was an accomplished scientist who died as a result of a laboratory accident on June 8, 1997 at age 48. Dr. Wetterhahn served as the Program Director of the Dartmouth College Superfund Basic Research Program in Hanover, New Hampshire from 1995 to 1997. She was also a Principal Investigator who studied the effects of toxic heavy metals on cellular processes.

"Dr. Wetterhahn was not only an excellent scientist, but a good friend, who embodied all that is good about science," said Bill Suk, Director, Superfund Basic Research Program. "We are pleased to offer this award in her memory and provide opportunities for post-doctoral researchers like Anne to carry on this important area of research."

For more information about the award, and other DERT SBRP activities, visit the website at http://www-apps.niehs.nih.gov/sbrp//

Papers of the Month – AUGUST 2005

By Jerry Phelps

1) Furlong CE, Cole TB, Jarvik GP, Pettan-Brewer C, Geiss GK, Richter RJ, Shih DM, Tward AD, Lusis AJ, Costa LG. Role of paraoxonase (PON1) status in pesticide sensitivity: genetic and temporal determinants. Neurotoxicology. 2005 Aug;26(4):651-9.

Implications: These studies build on the previous results describing the susceptibility of young children to organophosphate insecticides. The most important conclusion is that PON1 enzyme level and individual phenotype are both critical for determining an individual's response to organophosphate exposure. The results indicate that children less than 2 years old, especially those homozygous for PON1Q192, would be predicted to be particularly susceptible to chlorpyrifos oxon toxicity.

2 Rohlman DS, Arcury TA, Quandt SA, Lasarev M, Rothlein J, Travers R, Tamulinas A, Scherer J, Early J, Marin A, Phillips J, McCauley L. Neurobehavioral performance in preschool children from agricultural and non-agricultural communities in Oregon and North Carolina. Neurotoxicology. 2005 Aug;26(4):589-98.

Implications: This study points out the need for additional larger studies aimed at determining whether low-level organophosphate pesticide exposures produces deficits in standardized test performance in children of agricultural workers. It also illustrates the importance of proper pesticide application and improved hygiene in pesticide applicators to prevent exposures in their children.

3) Hafeman DM, Ahsan H, Louis ED, Siddique AB, Slavkovich V, Cheng Z, van Geen A, Graziano JH. Association between arsenic exposure and a measure of subclinical sensory neuropathy in Bangladesh. J Occup Environ Med. 2005 Aug;47(8):778-84.

Implications: These findings add to the body of knowledge that chronic arsenic exposure through contaminated drinking water is associated with sensory peripheral neuropathy. Further research is necessary to elucidate a true dose-response relationship, but this study shows a clear connection between individual arsenic exposure and adverse nervous system effects.

4) Abraham JH, Finn PW, Milton DK, Ryan LM, Perkins DL, Gold DR. Infant home endotoxin is associated with reduced allergen-stimulated lymphocyte proliferation and IL-13 production in childhood. J Allergy Clin Immunol. 2005 Aug;116(2):431-7.

Implication: Household endotoxin exposure was associated with decreased production of the t-helper cell cytokine interleukin 13. The results of this study are consistent with the hypothesis that early life exposure to endotoxin protects against allergic diseases and allergy later in life.

After Hours

Unmasking Columbus

By Colleen Chandler
A book by two contract workers at NIEHS is making lots of headlines in Portugal.

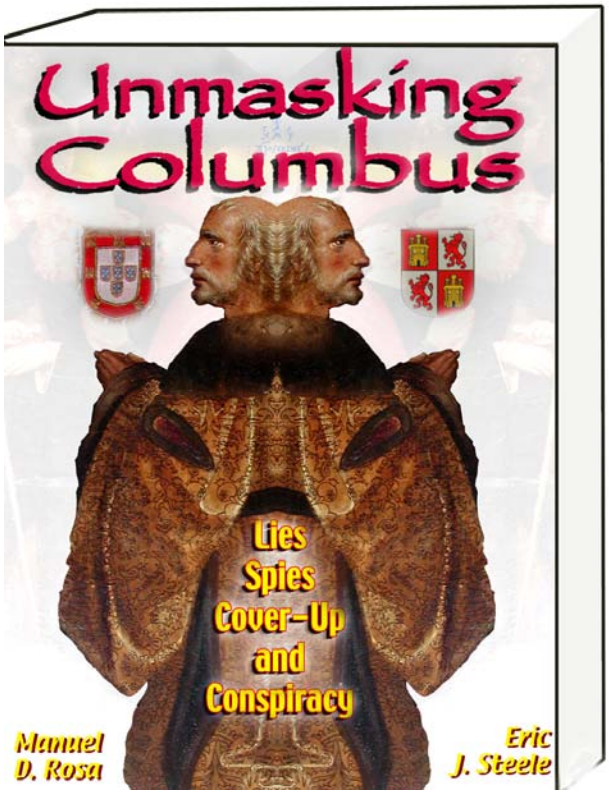
Manuel Rosa and Eric Steele's book, *Unmasking Columbus: Lies, Spies, Cover-up and Conspiracy*, paints a literary portrait of a Portuguese double agent working for King John II, rather than the Italian explorer portrayed in history books.

In a time of intense competition between Spain and Portugal over trade routes and new lands, according to the book, King John's objective was to divert attention away from Portugal's monopoly of the African gold trade and their soon-to-be new route around Africa to India. Spain, the book alleges, was less than straightforward in its methods, frequently following and raiding Portuguese expeditions.

Rosa was born and raised in Portugal, and speaks a number of languages including Spanish, Portuguese and Italian. He said a number of historical inaccuracies surrounding Columbus originated in inaccurate translations of historical material among the languages – either deliberately or accidentally.

The book was featured in the July issue of *Mundo Portugues*, along with photos of each of the men.

For more information on the book, go to www.unmaskingcolumbus.com.



(Cover design by Manuel Rosa)

Myers Makes Kool-Aid Bags and More

By Blondell Peterson

What do most people do with Kool-aid jammer drink cartons after the juice is gone? Throw them away? Not Jennifer Myers. She makes lunch bags and tote bags out of the sturdy plastic boxes. That's just the latest craft project for the artist turned writer.

Jennifer Myers displays some of her craft creations. (Photos by Steve McCaw)

Anyone who asks Myers what she does in her spare time, will soon find out that she is a true artist at heart. And, she has found several ways to unleash that alter ego. Myers' "Clark Kent" personality by day is that of a writer-editor in the LSB lab. Mainly, she puts manuscripts in the correct format to submit to various scientific journals. Besides that she's the property custodian, and she's been known to organize supplies, clean desks, help with spring cleaning and "anything else that needs to be done."

By her own admission, she "likes to stay busy." From the looks of her list of craft projects, she does a good job of that. For the last seven years, she's been working at a paint-it-yourself ceramic studio on Franklin Street in Chapel Hill, Myers said.

Kool-Aid Jammer tote bag, sewn by Jennifer Myers.

"I spent so much money at 'Paint the Earth,' I figured I might as well work there," she said. "I don't plan on leaving any time soon. I just really like it there—the whole process. The hands on stuff is great."

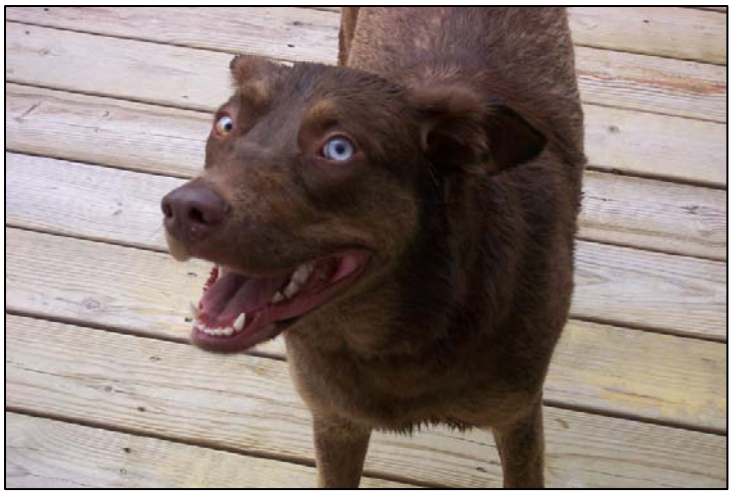
Myers says she knits, crochets, weaves baskets, makes gift baskets, paints pottery and Christmas ornaments, quilts, sews and grows violets from leaf cuttings. One of the violets was nearly 12 inches wide until she recently repotted it.

"I called one of the violets the 'siamese violet' because it had two faces," she said. "It's always been a little weird with two plants growing together. My husband just wants the kitchen sink back because it's covered with violets."

"My whole life I've always said I've got to have three bedrooms—one for me, one for the guests and one for the crafts," Myers said. "If somebody has questions about a craft I can probably answer it. I probably have it in my craft room."

"I have a wonderful husband, Bob, who agreed to the craft room and cut the bottoms out of all the Kool-aid packages and helped drink the Kool-aid so I could make the bags," she laughed. She laments that he won't have much time to wash Kool-aid boxes, now since he joined an RTP law firm "that has a lot of initials," but she's glad he got the position.

Besides her husband Bob, the other love in Myers' life is her Lab-Husky, Avery. Myers named her dog after the dormitory that she and Bob lived in at UNC Chapel Hill. Ironically Myers found Avery on the NIEHS Trading Post. "I wonder if any NIEHS employees adopted Avery's seven brothers and sisters," she said.



"Avery," Jennifer Myers' dog smiles for the camera. Myers said Avery faithfully sits by or "on" her crafts while she works. (Courtesy Photo)

Did You Know?

Event Marks 15th Anniversary of the ADA

By Blondell Peterson

Mark Ezell, director of the North Carolina 100 Percent Tobacco Free Schools program, was the speaker for a disability awareness month event on Oct. 11. The Diversity Council Disability Awareness Committee sponsored the program entitled, "Bringing Your Wheelchair to Mt. Everest."

The event marked the 15th anniversary of the Americans with Disabilities Act. When Alicia Moore, chair of the Diversity Council Disability Awareness Committee, opened the program, she said the ADA ensures that people who are physically challenged can participate in all opportunities of life, live with dignity, work productively and achieve dreams. "You're in for a treat as we are joined together today and have the opportunity to meet a man with tremendous courage and inspiration," Moore said.

Ezell, born with Spina Bifida, said he believes that people with disabilities can participate in many activities if the technology and equipment are available. That's why he didn't hesitate to purchase an expensive climbing chair and begin a trek to Mt. Everest.

Left to right: Mark Ezell accepts a plaque from Gordon Flake, accompanied by Kathy Ahlmark and Alicia Moore. (Photo by Steve McCaw, Image Associates)

At a cost of $6000 and a month off from work, he set out to reach the base camp at the top of Mt. Everest. From March 15 to Apr. 15, 2003, he climbed the mountain with a group of 24 people—half with disabilities. Only two out of the group didn't make it to base camp, he said. One was a quadriplegic and the other was a professional climber who got altitude sickness. Normally only 10 percent of the climbers make it, according to Ezell, and the trick is to go slow.

When he wasn't in his chair, Ezell said he was carried in a wooden basket, modified for climbers who used wheelchairs. Teenaged boys, some weighing no more than 150 pounds, carried the climbers. The boys had nothing more than straps around their heads to secure the climbers, according to Ezell. "It's not like it had a seatbelt," he said. "These guys would stop and rest pretty often and sit us down on a ledge. You'd look down and it would be about 5,000 feet down."

Ezell gave an example of how people with disabilities and people without disabilities can work together. One of the team members, an engineer and a west point graduate, verbally instructed Ezell and other team members on how to repair their radio. "He couldn't manipulate the wires himself, because he was a quadriplegic." Ezell said. "We each had skills we brought to the table."

Ezell jokingly told the crowd that there was no yellow brick road or sign out front saying "welcome to base camp," and there was no Starbucks or theaters along the way. After 30 days, the group made it to base camp and enjoyed dinner and entertainment by members of the Sherpa tribe. In return the westerners sang old Hank Williams tunes for the locals, he said.

Ever the adventurer, Ezell said the three-day stay at the 17,600 feet high base camp, was about 2 ½ days too long since there was nothing to do.

A couple of things happened on the way down the mountain that reminded the climbers of the seriousness of their adventure, Ezell said. First, a member of a French expedition died of pulmonary edema. The second wake up call was the "taxi ride," as Ezell called it, from base camp to town.

"We were airlifted out on a vintage 1979 soviet army helicopter," he said. "The helicopter was hijacked by two soviet pilots from Aphghanistan who flew to Nepal and started this 'taxi service.' When you got inside you could see the bullet holes in the bottom that had been closed with epoxy," he said. "It was fascinating but a little disconcerting."

M'n'M Singers Perform at the Rodbell Auditorium

By Blondell Peterson

The room was already charged with positive energy after Mark Ezell's presentation, "Bringing Your Wheelchair to Mt. Everest." at the Disability Awareness Month event Oct. 11 at the Rodbell auditorium.

Left to right: Maria Owens, Dona McNeill, Haley McNeill-Cox (Dona's daughter), and Margaret Lucas sing and sign with Kelly McNamara as she leads the song, "This Little Light of Mine." (Photo by Steve McCaw, Image Associates)

Then Dona McNeil, an NIEHS administrative officer, introduced the "world famous" *M 'n' M* singers. This group of adults with developmental disabilities performs regularly at churches, civic groups and community events in the triangle area.

McNeil announced that "Administrative Officer" is just her day job. Her real passion is singing, and she claims the *M 'n' Ms* are the only group that will allow her to sing with them. McNeill and her daughter Haley have been singing with the group for ten years. "The *M 'n' Ms* have taught me a lot of important things," McNeill said. "Some of the *M'n'M* wisdoms as I call them are: one, It's important to be proud and grateful for all your gifts, and that everybody have a lot of gifts. Two, don't waste your time judging yourself or others as wanting. Three, show up and do your best because that's the most important thing."

When the "*M'n'Ms,*" as they are called, sang songs like "I Am an M 'n' M Singer," "I've Got Peace Like a River," and "Amazing Grace," the audience sang along. Tommy Anorado performed "Amazing Grace" as a solo, in Tony Bennett style.

The group ensures that everyone can enjoy their music by including sign language interpretation. "We sign many of the words to our songs as we sing them," said Carol Roesch, the director and music therapist. "That's to make sure that everyone is able to participate in as many ways as they can, and so that our audience members are able to understand in as many ways as they can."

Roesch then introduced Porter Sing, noting that he has a very gentle voice so audience members needed to listen carefully to hear the lyrics. "He signs very beautifully," she said. Sing signed the lyrics to the song,"In Moments Like These" while Anorado held the mike for him.

The *M 'n' Ms* got the audience to clap along when they sang "This Land Is Your Land," "He's Got the Whole World in His Hands," and "This Little Light of Mine,"--a hearty solo by Kelly McNamara.

Roesch told the audience that the *M'n'Ms* always end rehearsals and programs with the song, "We Shall Overcome. Amy Moore explained why.

"This is a beautiful song for us to sing because there are a lot of people in this world who have over come a lot, and a lot of stuff that needs to be overcome will also be overcome in our lives," Moore said. "Yall can stand up and join us."
The audience did just that—all around the Rodbell auditorium with hands uplifted.

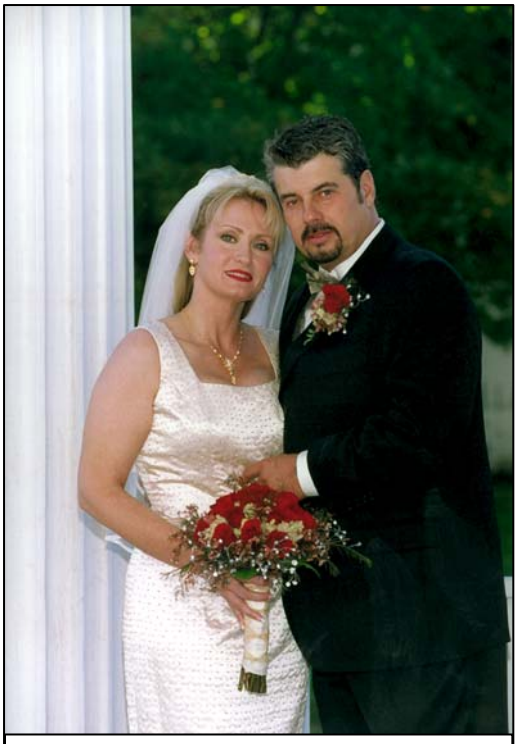
Thanks and Goodbye to Carolyn Snock

In what seems to be an oxymoron of sorts, fitness room regulars supplied the most decadent foods as a way of saying goodbye to a beloved fitness instructor.

Carolyn Snock started working in the NIEHS fitness room about 18 months ago. Since then, she quickly established a following, and from from the looks of the buffet table at her going away party Oct. 14, quite a fan base ready and willing to show their appreciation for her efforts. Fitness room manager Stephanie Bullock-Allen organized the surprise party on Snock's last day.

Carolyn Snock, seated at the head of the table in front of the cake, apparently established quite a following during her 18 months in the NIEHS Fitness Room. Seated next to her is the fitness room manager, Stephanie Bullock-Allen. On the other side is Diane Crawford, the project officer in charge of the Wellness, Fitness, and Recreation Program. (Photos by Colleen Chandler)

Jack Bishop, a geneticist in the Toxicology Operations Branch, dishes up his special home-made chocolate with chocolate chip ice cream. Meanwhile, Debbie Stumpo, staff scientist in the Laboratory of Neurobiology, samples the goods.



Christine Bruske, director of the Office of Communications and Public Liaison, is now Mrs. Christine Bruske Flowers. She married Bill Flowers Oct. 3. The wedding ceremony was conducted in Stowe, Vt. (Photo by Lauren Stagnitti)

Help! I Have a Presentation!

By Blondell Peterson

According to William Shakespeare all the world's a stage and all the men and women are merely players. Sarah Wiggin, an NIH scientific public speaking teacher, elaborated on Shakespeare's concept in her own way. Wiggin spoke on the subject, "Help! I Have a Presentation to Make" at Nottingham Hall Sept. 28.

Wiggin is a speech coach with Premier Public Speaking in D.C. On a good day she said she wears her favorite hat—that of an actor.

Wiggin said whether it is one on one communication or a presentation before thousands of people, the same rules can apply. Understudies have a short time to learn the lines, and often they do not get a chance to rehearse on the stage with the props. According to Wiggin, the same is true for an impromptu speaker or one who has little time to prepare. Throughout the presentation she gave examples of how understudies for actors must prepare in the same way that any speaker would prepare to make a presentation.

Her basic suggestions included practicing a speech standing up in the same clothes the speaker is going to wear. Other key points to remember are:

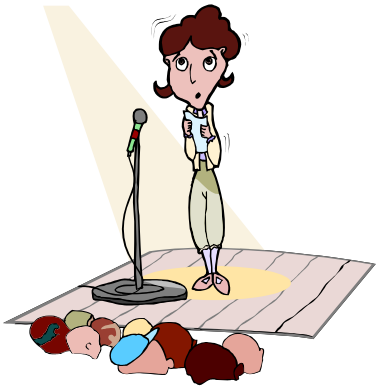
*The audience wants the speaker to succeed, so it's alright to use note cards. The audience hardly notices. Wiggin held cards during her presentation.

* Only refer to the notes. Use presentation aids as visuals and not a script. "You know the material better than you think," said Wiggin.

* Don't mimic another speaker. The best way to do this is to use examples, and put your experience in your speech. "Be yourself," she said.
*Sit down and shut up. Embrace limitations like time constraints, and stick to the topic designated for the presentation.

In a performance as an understudy, Wiggin had to wear a wedding dress that was several sizes too big. Understudies don't get to choose their own wardrobe, and speakers don't always get to choose their topic. "Dress the part," she said. "If you can't change your clothes, change your attitude," she said. She decided to make the best of it by inserting humor into the part. She also called all her friends. She told them that if they ever wanted to see her in a wedding dress, they'd better show up that night.

Wiggin said two very key points to remember are to always end early and to use the two-minute-per-slide rule for PowerPoint. That is, a one-hour presentation should have no more than 30 slides.



She suggested using the three step process rule with slides:
Step 1: Preview. Let people know what they are about to see.
Step 2: Highlight. Point out the important information on the slide
Step 3: Spin. Tell what's important about the information you just pointed out.

Her final suggestion is to remember that it's worth it. "Look at presenting as an opportunity to share your knowledge and expertise," she said.

Up and Coming

- Frederick W. Alt, co-chief of the Division of Molecular Medicine at Children's Hospital in Boston, Massachusetts, will deliver the Falk lecture **Nov. 9** at 2 p.m. in the Rodbell auditorium

- The new First Environments Early Learning Center will open on the NIEHS/EPA campus **Nov. 14**. There are openings for all age groups. Federal employees have priority for placement. Trainees and contractors are also eligible. For admission information, call Wendy Boggus at 541-4782. Center information is located at http://www.niehs.nih.gov/daycare/home.htm. The most recent e-Factor story about the center is located at http://www.niehs.nih.gov/factor/issues/2005aug.pdf

- The first annual NIEHS-EPA Challenge Biathlon is set for 9:30-11:30 a.m. **Nov. 15**. The event, open to all EPA and NIEHS employees and contractors, will benefit CFC. Deadline to enter is Nov. 9. Go to the fitness room or contact either of the following people for forms, information and entry submission:

Nottingham Hall	Rob Levine	Ext. 7559	NH-223
East Campus	Ethel Jackson	Ext. 7846	EC-3160
South Campus	Craig Everett	Ext 7804	102/S115
Main Campus	Jack Field	Ext. 2391	A239

- Steven Davis, a UNC professor, will speak on the topic "Archaeology in the Old Catawba Nation" **Nov. 18** at 2 p.m. in the Rall Building auditorium. A reception after the talk will feature Native American foods and music in the cafeteria.

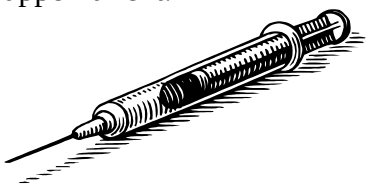
- Lloyd Arneach, a Cherokee story teller, will present stories at NIEHS and at First Environments Center **Nov. 22** from 10-11 a.m. An all hands e-mail will be sent out to confirm the logistics

- The annual NIEHS Director's award ceremony will be held **Dec. 15** at 2 p.m. in the Rodbell auditorium.

- The celebration will begin immediately following the Director's Award ceremony **Dec. 15**. Events in the cafeteria will include table and poster displays from countries around the world, performances by the NIEHS band, international foods and other entertainment. Look for more announcements in the e-Factor.

Flu Vaccine 2005

The NIEHS Health Unit will offer the flu vaccine to all federal employees of NIEHS,beginning Monday, Nov. 7 **by appointment only.** Reply directly to the all hands e-mail sent out Nov. 4. A nurse will call to schedule an appointment.



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