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NIEHS Spotlight

NIEHS Mobilizes to Assist Hurricane Victims - Again

By Colleen Chandler

NIEHS took no chances, and started preparing for Hurricane Rita's onslaught before she was scheduled to hit the Gulf Coast, an area already ravaged by Hurricane Katrina. Staff worked quickly to add information about Rita to the existing NIEHS web pages that were set up in the days following Katrina's catastrophic landfall.

The web pages, which can be accessed from <http://www-apps.niehs.nih.gov/Katrina/>, now provide relevant health and safety information on both hurricanes. The Geographic Information System page provides information on sources and routes of contaminants, assessment of human exposures during the aftermath of the hurricanes and potential future exposures for each hurricane.

The website also contains comprehensive information on safety and hazardous waste cleanup for emergency responders in the area.

Some activities that NIEHS initiated or participated in related to Hurricane Katrina included:

- NIEHS's Capt. Bill Stokes, chief veterinary officer for the Public Health Service and executive director of the Interagency Coordinating Committee on the Validation of Alternative Methods, is heading a team of PHS veterinarians assisting with zoonotic public-health issues in Louisiana. Team members are assisting with carcass disposal at biomedical facilities and are treating thousands of rescued animals. As a precaution against outbreaks of zoonotic diseases, the team is vaccinating and treating rescued animals as they are brought to shelters.
- NIEHS is working with the Centers for Disease Control and Prevention to develop public health teams that can be dispatched to the field.
- An NIEHS researcher is serving as an advisor on the Environmental Health Assessment and Habitability Taskforce established by DHHS and EPA to identify health issues that need to be addressed in post-hurricane New Orleans. The team has issued an initial report, but is working on a follow-up document that includes surrounding parishes and provides guidance of dealing with the issues.

Attend the NIEHS forum on Hurricane Katrina relief hosted by DAS on Oct. 5 to hear more about NIEHS activities.

Town Meeting Held in RTP

By Colleen Chandler



Jean Harry, NIEHS neurotoxicologist, and Isaac Pessah, from the Center for Children's Environmental Health & Disease Prevention at the University of California – Davis, moderated the public forum at the NIEHS Town Meeting Sept. 11 in Research Triangle Park. NIEHS Director David Schwartz delivered the keynote address. (Photos by Colleen Chandler)



NIEHS held a town meeting and public forum Sept. 11 in conjunction with the 22nd International Neurotoxicology Conference.

The town meeting was intended to stimulate dialogue among the public, public-health officials, practitioners and policy makers. As part of that meeting, a variety of informational presentations provided updates on biomedical research, with a focus on neurological disorders including Alzheimer's and autism.

Jean Harry, a neurotoxicologist at NIEHS, discussed environmental exposures and the role they play in combination with genetics, underlying disease and aging. NIEHS Director David Schwartz delivered the keynote address,

“Role of NIEHS in Improving the Public's Environmental Health.”

While NIEHS has made a number of substantial contributions to biomedical research, the institute needs to tighten its focus, Schwartz said.

Schwartz has established a strategic planning group, which will begin meeting this month to draft a strategic plan. The draft document will be posted for public comment in the Federal Register before it is finalized. The final version is expected sometime in early 2006, he said.

The event concluded with presentations by advocacy group representatives and local leaders in public health. A panel, moderated by local anchor, ABC 11's Anthony Wilson, took

questions and provided input on science issues relative to education and public policy. Panelists from Duke University, North Carolina Central University, Wake Forest University, the state health department and a community group in Tillery, N.C., talked about PCBs in Lake Crabtree, hog farms and health, farm workers and pesticides, lead mapping in Durham, and environmental justice.

Hendrix Delivers Season's First Distinguished Lecture

By *Blondell Peterson*

Mary J. C. Hendrix, professor of pediatrics at Northwestern University's Feinberg School of Medicine and President and Scientific Director of the Children's Memorial Research Center at Northwestern University, lectured on "The Epigenetic Influence of the Microenvironment on Cell Plasticity" on September 14 at the Rodbell Conference Center. The lecture was the first of this academic season's Distinguished Lecture Series.

"Mary is one of the pioneers of developing techniques to understand molecular mechanisms of metastasis," said Deputy Scientific Director Steven Akiyama and host for the lecture. "She developed some of the earliest in vitro invasion assays that are still in use today to try to understand the fundamental steps in this very complex process."

Although they didn't realize there was a common thread at the time, Hendrix said scientists in her lab looked at properties that tumors and embryos share in common. It turns out they share many common properties, for example both tumors and embryos require a blood supply for growth.



(Photo by Blondell Peterson)

They made the discovery by placing metastatic human melanoma cells in a three dimensional type 1 collagen matrix. The first observation of the culture occurred three days later when a researcher noticed these metastatic melanoma cells formed extracellular matrix rich networks. These network structures look very similar and mimicked these primitive vasculogenic type networks.

"Our lab has been trying to understand what the molecular and cellular determinants are underlying vasculogenic mimicry in really looking at this as just an example of tumor cell plasticity," she said. "More recently we've been looking at the role of the tumor microenvironment in contributing to this particular phenotype."

"What's interesting to note is that the very first type of blood supply in an embryo is formed through a process known as vasculogenesis," she said. While she showed an artists rendition in a slide of how stem cells begin to coalesce during vasculogenesis, she went on to say that they differentiate into endothelial cells. These endothelial cells will form these primitive vasculogenic networks.

Other properties that embryos and tumors share in common that are becoming much more apparent with microarray analysis, according to Hendrix, are that they share common stem cell markers.

She said a question that has been a little puzzling for some scientists is, "Why do tumor cells that are highly aggressive look very much like embryonic stem cells?"

Hendrix also talked about the role of microenvironment in shaping and affecting tumor cell plasticity. In particular, she discussed one of the examples of tumor cell plasticity that researchers found in her lab and reported on in 1999, called vasculogenic mimicry.

Hendrix said scientists in her lab have looked at close to 30 human melanoma cell lines divided into poorly aggressive versus highly aggressive cells. While she showed pictures of the cells on tissue culture plastic, Hendrix said it's always important to look at cells in many different environments. Her lab would never have made the observation of vasculogenic mimicry if they had not taken cultures from tissue culture plastic and placed them in a three dimensional matrix.

ACSI Implemented to Evaluate NIEHS Website

By Lou Rozier

A respected indicator of customer satisfaction in the United States, the American Customer Satisfaction Index (ACSI) survey is the tool being utilized to evaluate 60 sites from across NIH, including NIEHS. Agency officials approved the use of set-aside evaluation funds to measure customer satisfaction and improve service.

ACSI is based on research from the University of Michigan Business School and has been used at over 100 federal sites, including NASA, FirstGov.gov, NCI and the National Library of Medicine's MedlinePlus.

NIH has been working with ForSee Results, a private company that focuses on web-based customer satisfaction management. ForSee Results uses the ACSI methodology. The goals of the survey for NIEHS are to:

- measure user satisfaction with the specific site
- determine who is coming to the site and why
- learn whether they find the information they need

NIEHS has designed some custom questions to be included. The results of the survey, along with future usability testing, will be used to:

- determine what changes should be made to improve the site
- ensure that content and organization meet user needs
- measure the effects on customer satisfaction of any changes made

The survey is randomly delivered to visitors to the NIEHS site and will remain on selected NIEHS web pages through the evaluation period, which runs for one year beginning September 2005. The pop-up questionnaire takes only 2-3 minutes to complete.

Users are given an invitation to complete the survey. It is possible to minimize the survey on your browser so that it can be taken at a later time to fit your personal schedule. Although it is not mandatory that the survey be completed, it will be most helpful to our office in the redesign of the site if you will provide feedback.

It will not be possible to identify individual respondents to the survey, so your answers will remain anonymous. A decision to not complete the survey will have no effect on your ability to access information.

Finally, it should be known that for the ACSI survey, NIH received permission from the Office of Management and Budget to employ "persistent cookies." A "persistent cookie" is code stored on a user's personal computer that the site will recognize when that user returns for another visit.

The cookie will:

- block the repeated delivery of the survey either in the current visit or in any subsequent visit within a certain number of days

- make record only that the visitor had the opportunity to answer the survey questions

The cookie will not:

- collect any information about visitors
- track the web-surfing activities of the visitors
- indicate whether a visitor answered any questions, or record any answers given

Although users may take the survey without accepting cookies, they may find that the survey pops up more frequently. This is because the cookie prevents the survey from popping up when it knows that you have already taken the survey.

CFC Time Again

By Rob LeVine, NIEHS Campaign Coordinator

The 2005 Combined Federal Campaign has started. The CFC provides a special opportunity for federal employees to give to charitable CFC organizations of their choice. This year's campaign begins after a terrible disaster for our country. We are all aware of the Hurricane Katrina disaster and the resulting need for assistance. Some of us have friends or family members whose lives will never be the same. Many of us may have given to the relief efforts. You've most likely heard on the news that the charities that provide on-site assistance require continuous gifts to sustain their services in addition to the immediate need. Our local charities require help as well. Locally, we have many stories of people who could really use our help.

The NIEHS CFC Campaign runs from now through early November. Giving through the CFC continues to be the best way to ensure that you get the most service for your charitable dollar, and by doing so, you will join thousands of federal employees who want to make a difference in the lives of others. Last year NIEHS donated \$83,981.40 in combined contributions. This year, we'd like to improve that number. The theme of this year's campaign, co-authored by our own Debbie Garner, is "Ordinary People Doing Extraordinary Things One Contribution at a Time."

The Campaign includes over 2,000 national, state, and local charities that you can support through the CFC. Many of these organizations desperately need your financial assistance and depend heavily on the support they receive from the CFC. When you receive a campaign brochure from a colleague acting as a CFC keyworker, please consider a contribution. You can contribute with cash, check or via payroll deduction. If you have never given before, you should be aware that the payroll deduction system works very well. When you declare your gift, a part of it goes to your charity each payday and you'll have the satisfaction of knowing that your charity can count on a check every single month.

A keyworker will be assigned to your area to answer any questions and distribute the needed materials. Please contact your keyworker for any additional information and to obtain specific information on a charity. This year, through your generous donations to the Combined Federal Campaign, each of you will have the opportunity to be someone's hero by giving of yourself to help those who are less fortunate. Please consider supporting the CFC.



Science Notebook

Workshop Focuses on Shared Etiology of Addiction and Chemical Intolerance

By Colleen Chandler

Experts in chemical intolerance and addiction joined forces Sept. 19-20 to compare notes on the possibility that the two conditions share more than NIH funding sources.



Annette Kirshner, a grant administrator in DERT's Cellular, Organs & Systems Pathobiology Branch, answers questions from panelists. (Photo by Colleen Chandler)

NIEHS and the National Institute on Alcohol Abuse and Alcoholism funded the workshop, "Addiction and Chemical Intolerance: A Shared Etiology?" held at Sigma Xi in Research Triangle Park. NIEHS Deputy Director Sam Wilson set the stage with the introduction and workshop goals, followed by Ting-Kai Li, director of NIAAA.

Claudia Miller, from the University of Texas Health Science Center in San Antonio, Texas, chaired the workshop and presented her research on chemical intolerance and addiction.

"Are these, in fact, different sides of the same coin?" she asked fellow panelists.

While the two appear to be polar opposites, when considered in relation to toxicant-induced loss of tolerance, a similarity emerges: both involve a breakdown of innate tolerance and both result in withdrawal symptoms, Miller said.

The explanation, Miller argues, has the potential to explain a variety of medical conditions including some forms of asthma, migraine headaches and depression as well as mystery conditions like fibromyalgia, chronic fatigue syndrome and Gulf War syndrome.

What Follows Fruit Fiber Benefits to Second-Hand Smoke Effects?

By Blondell Peterson

Through a study of 35,000 adult non-smokers in Singapore, researchers found that early life exposure to second-hand smoke can create life-long respiratory problems. Subjects who ate more fruit and soy fiber in adulthood seemed to be protected against some of the negative effects associated with early tobacco exposure.

“We found that the harmful effects were found predominantly in people who had a less fiber rich diet.—not to say that fiber is a cure-all,” said Stephanie London, a senior investigator in the Epidemiology branch. “The message is that environmental tobacco smoke can have long lasting effects and diet can have some beneficial effects on respiratory health. London developed collaboration to the Singapore Chinese Health Study, and added the respiratory assessment to the cancer cohort study.

“What really made this study possible was the meticulous attention to detail of my collaborators,” said London. She credits Mimi C. Yu, principal investigator of the cohort study, which was sponsored by the National Cancer Institute. Yu, now at the Univ. of Minnesota Cancer Center, also directed the study team in Singapore. The Singapore collaborators were Hin-Peng Lee and Woon-Pyay Koh, researchers at the National University of Singapore. “It’s really a great resource largely because of their efforts,” London said. The paper was written by London’s former post doctoral fellow, Gloria David, a researcher at Rho Inc. in Chapel Hill.

What follows the fruit fiber finding?

The immediate goal, according to London, is to keep the cohort going and complete another round of follow up. That will take four to five years because it is such a large cohort.

London is also putting together a proposal to do objective tests of pulmonary function on a sample of members of the cohort. The big thrust in the next five years is to look at gene environment interaction with respiratory disease, said London.

London noted that about half of the subjects in the cohort gave blood samples for further studies. “We’ll look at genetic polymorphisms that may influence adult asthma risk, and we’ll be able to look at interaction with environmental tobacco smoke and active smoking,” she said. “That’s the next wave.”

Another work in progress is a paper in which her former postdoctoral fellow, Lesley Butler, now at the University of California at Davis is using principal components analysis to analyze dietary patterns in the cohort in relation to respiratory symptoms and illness. London explained that the analysis of dietary patterns can help make sense of findings based on individual foods and nutrients.



After Hours

NIEHS in the [Latino] Community

By Colleen Chandler

Between 1990 and 2000, the number of Latinos in North Carolina nearly quadrupled, giving North Carolina the fastest growing Latino population in the United States. According to the North Carolina Institute of Medicine report, "NC Latino Health 2003," most Latinos in the state are recent immigrants.

Latinos are a diverse group from a variety of Spanish-speaking countries. They face a distinct set of health-care challenges based on the lack of health insurance coverage, language barriers, culture-based health care beliefs and a general unfamiliarity with the U.S. health care system, according to the report.

Gerard Roman, an NIH equal employment opportunity specialist at NIEHS, and a cadre of volunteers organized by Linda Yu, a member of the NIEHS Diversity Council,

undertook a public education campaign targeting the Latino community. The group set up an information booth with Spanish materials from a number of institutes under the umbrella of NIH offering a wealth of health information at the Feria de Salud, or health fair, a part of the La Fiesta del Pueblo.

La Fiesta del Pueblo is an annual cultural festival at the state fairgrounds in Raleigh. This year it was Sept. 10 and 11. It is sponsored by El Pueblo, Inc., a nonprofit Latino advocacy group. NIEHS has participated in the event for the last five years.



Xiao-Ping Yang, right, a biologist in the Laboratory of Respiratory Biology, Karina Rodriguez, center, an Intramural Research Training Award recipient, and Gerard Roman, handed out Spanish health information at the La Fiesta del Pueblo on Sept. 10. Six people from NIEHS volunteered their time to work at the information booth. Those who do not speak Spanish found other ways to be helpful, like stocking supplies.

(Photo by Colleen Chandler)

Roman said one of the volunteers walked through the crowds, directing expectant moms to the NIH booth, to pick up free promotional baby shirts provided by the National Institute of Child Health & Human Development. The tiny t-shirts are part of the NICHD Back to Sleep campaign to prevent Sudden Infant Death Syndrome. The shirts are imprinted with the slogan “Dormir Boca Arriba” as a reminder in Spanish that infants should be placed on their backs to sleep.

Besides Roman, other volunteers from NIEHS who participated were Karina Rodriguez, Lysandra Castro, Juanita Roman, Fernando Suarez, Xiao-Ping Yang and Kathy Odenwald. A Chapel Hill High School student, Janice Tsai, also joined with NIEHS.

Roman said many other booths at the health fair offered NIH health information in Spanish, including research grant programs like “No Fumo” (tobacco prevention), “Comunidad Sana” (breast cancer) and the NIEHS Sister Study. He said many of the people he spoke with told him they would read the material then send it to their families in Mexico, where such health information is scarce. “It was good to see NIH funding put into good use for a noble cause,” Roman said.

Pedal Power

Jerry Phelps in America’s Heartland

By Colleen Chandler



Jerry Phelps at the official halfway marker between St. Paul, Minn., and New Orleans, La. The trip, however, was cut short by Hurricane Katrina and ended 500 miles north in Hernando, Miss.

It was no luxury vacation for Jerry Phelps this summer.

Instead, he packed up the bare essentials – which in this case included his bicycle – and headed for St. Paul, Minn., where he met up with a group of 31 people to embark on the Great Mississippi River Ride.

Members of the group made their way south from St. Paul, following a path along the Mighty Mississippi that took them through small towns virtually invisible from the interstate. Total distance: 1,201 miles, weaving through 17 cities in eight states over 16 days. That’s an average of 75 miles each day.

fields, riders encountered a variety of wildlife and met local residents. “The beauty and diversity of this country and its people are best seen on the back roads at 20 miles per hour,” Phelps said.

Besides the changing landscape they witnessed, which ranged from heavy foliage and trees to corn and soybean



The Great Mississippi River Ride started in St. Paul, Minn. It meandered to (1) Red Wing, Minn., (2) La Crosse, Wisc., (3) Prairie du Chien, Wisc., (4) Dubuque, Iowa, (5) Clinton, Iowa, (6) Galesburg, Ill., (7) Keokuk, Iowa, (8) Hannibal, Mo., (9) St. Charles, Mo., (10) St. Charles, Mo., (11) Festus, Mo., (12) Ste. Genevieve, Mo., (13) Cape Girardeau, Mo., (14) Union City, Tenn., (15) Ripley, Tenn., (16) Memphis, Tenn., (17) Memphis, Tenn., and finally, (18) Hernando, Miss.

The route was planned to meander along the Mississippi to New Orleans, taking the group through Red Wing, Minn.; La Crosse and Prairie du Chien, Wisc.; Dubuque and Clinton, Iowa; Galesburg, Ill.; Keokuk, Iowa; Hannibal, St. Charles, Festus, Ste. Genevieve, and Cape Girardeau, Mo.; Union City, Ripley and Memphis, Tenn.; and Hernando, Miss before heading into Louisiana. But, it seems, Mother Nature had other plans. Hotel rooms along the southern part of the route were in big demand by Hurricane Katrina evacuees, and most riders decided to end the trip 500 miles shy of New Orleans rather than take up valuable resources, Phelps said.

Phelps' wife, Beth Anderson, a program analyst in DERT who grew up in the Midwest, describes her husband as a very active person who sets arduous goals and pursues them with commitment. Anderson and Phelps' daughter, Emily, drove along the route, meeting up with Phelps each evening and at rest stops. They, too, enjoyed the sights in American's heartland. "The views on back roads, through the rolling farmland, are spectacular in a wholesome way," Anderson said.

Phelps said he enjoyed talking to the local people, who were always curious about the trip. He and another rider appeared on the cover of the *Sun Times* Aug. 26 in Ozora, Mo. Anderson said she has no doubt her husband was asking as many questions as he was answering.

"Jer's very social nature turns something like this into an opportunity to expand his horizons for meeting people out of our everyday sphere. Not only did he meet people on the tour, but almost every day he had some interesting encounter with someone along the road – frequently local cyclists," Anderson said.

Phelps will soon have an opportunity to tell his tales in person. EEO is sponsoring a presentation on the trip Oct. 5 from 2-3 p.m. in the Rall Building, conference room 101A.

Cycling for MS

By Colleen Chandler

In what has become an annual event for him, Jerry Phelps has logged another 175 miles for multiple sclerosis as part of an annual fund-raising bikeathon. That brings the total to about \$3,000 that Phelps raised in the last three years for the Eastern North Carolina Chapter of the National Multiple Sclerosis Society.

The 2005 MS 150 Magical Mystery Bike Tour was Sept. 10-11 in New Bern. The tour consisted of 75-mile loops on each day, with an additional 25 miles for the heartiest riders. The final day, however, was affected by hurricane remnants, and was limited to 75 miles, for total maximum mileage of 175.

Phelps became a regular participant in the annual fundraiser because of his strong personal convictions about helping people afflicted with MS. He was one of more than 1,400 people who participated in the ride this year. That's 500 more people than last year.

Not all the funds are in yet, but already the group has collected \$818,000 of the \$1 million goal, according to the organization's web site.

Many of the riders either suffer from MS or know someone affected by it. While it is difficult to watch MS patients' health deteriorate over time, the people afflicted with MS who participate in the ride serve as a source of inspiration, Phelps said. He said there are about 3,800 people in eastern North Carolina who suffer from MS. The money raised goes to provide services as well as fund research, he said.

Phelps is one of 35 people on the team known as the MStery Riders. There are about 20 teams that participate in the ride, and there are three such rides – one for each of the three divisions – in North Carolina each year. Phelps first started riding a bike seriously in about 1985, but again became serious about it four years ago when back problems forced him to quit running.



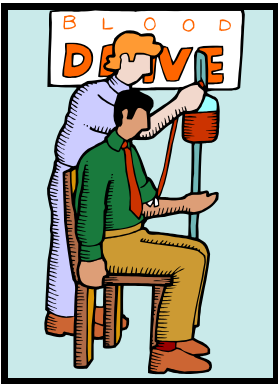
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Who, do you suppose, Jerry Phelps might root for at local college athletic events? Phelps displays the answer as part of his gear while participating in the Great Mississippi River Ride Aug. 14-31. (Courtesy photo)



Did You Know?

NIEHS Blood Drive Results



A total of 72 people gave blood during the September blood drive at NIEHS. Those donations resulted in 66 productive units of blood. Most blood drives have first-time donors, but not this one.

NIEHS Shuttle Service On-Call

By Blondell Peterson

To reduce fuel consumption, the NIEHS shuttle service is operating on an on-call basis. To request transportation, call the driver on his cell phone at (919) 621-8361. As a backup resource, call Rhonda Carroll at (919) 541-4580 or Marcus Harris at 541-0086 for assistance. The only routine daily shuttle operating hours will be during lunch between the hours of 11:05 a.m. and 12:40 p.m.

The NIEHS shuttle will routinely operate on the following schedule during lunch:

Depart from Rall Building	Destination	Depart for Rall Building	Arrive Rall Building
11:05 a.m.	Nottingham Hall	11:17 a.m.	11:30 a.m.
11:40 a.m.	4401 Building	11:50 a.m.	12:00 p.m.
12:05 p.m.	Nottingham Hall	12:17 p.m.	12:30 p.m.

12:40 p.m.	4401 Bldg.	12:50 p.m.	1:00 p.m.
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The handicapped accessible van is also available for use as needed.

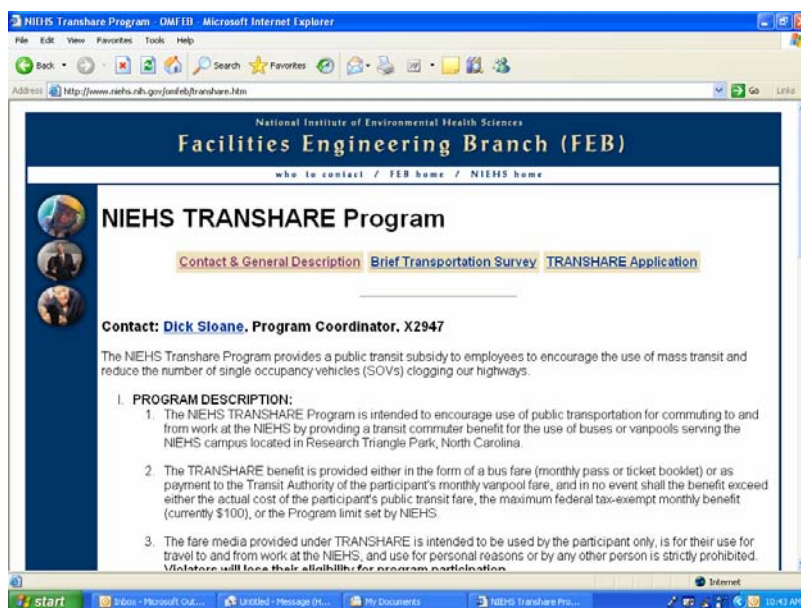
The GSA minivan, which uses ethanol fuel, will also be utilized for shuttle service.

Alternative Transportation Use Escalates

By *Blondell Peterson*

Alternative transportation programs at NIEHS got a shot in the arm because of elevated gas prices after Hurricane Katrina, according to Dick Sloane, NIEHS transportation guru.

Sloane said more than 10,000 people in the triangle area participated in the Smart Commute Challenge. “We really had huge growth in the Transhare program at NIEHS,” he said. “Bus riders in the Transhare program jumped from 47 to 70, and there was a 50 percent growth in vanpool riders in the last two weeks.” The Transhare program website is located at <http://www.niehs.nih.gov/omfeb/transhare.htm>. Application forms are available at <http://www.niehs.nih.gov/omfeb/transport.htm>



When the governor announced a need to cut back on fuel consumption, Sloane responded by setting up a publicity event to make employees aware of the NIEHS Flexible Telecommuting Program. The event that was held Sept. 8 yielded five new teleworkers according to Sloane. With approval from NIEHS management the application process was streamlined in order to get approved employees into the program more quickly. Ultimately, an employee must obtain supervisory approval in order to participate in the program. The NIEHS Flexible Telecommuting Workplace Program website is located at <http://www.niehs.nih.gov/om/telecommuting/>. The telecommuting procedures are outlined on the website located at <http://www.niehs.nih.gov/om/telecommuting/procedures.htm>

Low Back Pain – What Can I Do About It?

By *Blondell Peterson*

Tim Carey, a general internist at UNC Chapel Hill and primary care physician, was the guest speaker at the Rodbell auditorium on Sept. 15. His topic was, “Low Back Pain—What Can I Do About It?” The event was sponsored by The NIEHS Fitness and Wellness Program.

Carey moved from the division of general internal medicine to direct the Cecil G. Sheps Center at UNC. He holds a masters degree in public health and epidemiology and is affiliated with multiple training programs, including the Robert Wood Johnson Clinical Scholars Program, the NIH funded Clinical Research Curriculum, the Primary Care Research Fellowship, and the Faculty Development Program in General Internal Medicine.



While completing a training fellowship in epidemiology and health services research at the University of Southern California Carey studied back pain. “It seemed like an interesting intersection of pathophysiology and society because it seemed to be something that we, as a society, had not done a good job dealing with,” he said. “Consequently, the U.S. has the highest rates of back pain and back surgery in the world.”

According to Carey, 80 percent of people have back pain. That is pain that is so severe that a person is unable to do usual activities for at least one day. About 3 percent or 1/3 of the people that have a bout of back pain sees a doctor. Only 39 percent of back pain sufferers in NC seek a chiropractor first and 1/5 see back pain specialists such as orthopedic surgeons. Very few people see a physical therapist first largely because of costs. Most insurance companies in North Carolina require a referral from an MD prior to seeking care from a physical therapist. In other states that’s not the case.

Carey said this is a huge issue for society since medical costs for back pain is over \$25 billion. One insurance company reported to Carey that their back pain inflation rate is 8 percent per year.

Although 8 percent of the population gets acute low back pain, only 4 out of 10 people get care. “Costs in North Carolina for acute and chronic back pain care are responsible for a \$65 tax on every adult in the state,” Carey said. “So we’re all paying for everyone else’s back pain.”

Exercise and education are interventions that work, according to Carey. On the other hand, he said spinal fusion and epidural steroids are interventions that do not work. The worse thing to do during an episode of back pain is to go to bed. As soon as possible, he suggests getting back to usual daily activities especially walking.

Carey said physicians should look for the following “red flag” symptoms during an initial evaluation for back pain:

- weight loss
- fever
- history of non-skin malignancy
- chronic steroid use, osteoporosis
- significant trauma
-

According to Carey, back pain sufferers should see a physician when the following symptoms are present:

- unrelenting severe pain for more than 2 weeks
- leg weakness
- a “red flag” underlying condition
- significant trauma
- symptoms don’t improve after 2 weeks
- unable to work for more than 5 days

NIEHS Celebrates Hispanic Heritage



Gabriela and Cristal Franco perform the Mexican “Laculebra” dance at the fiesta in the cafeteria Sept. 29. Gabriela and Cristal are the wife and daughter of Rodrigo Franco, a visiting fellow in the Laboratory of Signal Transduction, and chairperson of the Hispanic Heritage Committee. Photo By Blondell Peterson

Up and Coming

- The NIH Ombudsman Kevin Jessar will be at NIEHS **Oct. 5-7** for confidential consultations. To schedule at appointment, call him (301) 594-9550.
- The Center for Rodent Genetics will hold its first annual conference **Oct. 6-7** in the Rodbell Auditorium. The conference will include updates on the Center for Rodent Genetics accomplishments over the past year and a progress report on the efforts to resequence 15 diverse mouse strains. There is no registration fee, but preregistration is required.

eFactor
Your On-Line Source for NIEHS News

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