

# Clinical Center

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Omar Echegoyén from the Office of Communications, Patient Recruitment, and Public Liaison chats with young science enthusiasts at the Clinical Center booth at the USA Science and Engineering Festival.

## CC staff teach about research and healthy eating at science festival on National Mall

By Britt Ehrhardt

Get kids fired up about scientific research. Demonstrate that healthy food can be tasty and affordable. To accomplish these worthy goals, Clinical Center staff joined thousands of children, teachers, parents, and scientists on the National Mall in Washington on October 23 and 24 for the inaugural USA Science and Engineering Festival. More than half a million people attended the event, where hundreds of NIH employees staffed booths and answered questions alongside business leaders and representatives from other government agencies.

Nearly 900 kids participated in an activity at the CC booth, Pack a Lunch with Punch for Kids in Research, that demonstrated the scientific research process.

Selecting a favorite food from a menu of options, children learned to form a hypothesis, collect and analyze data, and report results. A colorful take-away—a lunch box featuring the CC website—reinforced messages about healthy eating.

"This was a unique opportunity to educate the community about our research

hospital," said Kelli Carrington of the Office of Communications, Patient Recruitment, and Public Liaison. "It was exciting to see so many young faces eager to select their favorite food for the demo study."

Results of the demonstration were later posted on the CC website for further use by teachers and parents educating children about the scientific method.

Also representing at the USA Science Festival, CC Executive Chef Robert Hedetniemi headlined a cooking demonstration with Pete Thomas from the second season of NBC's "The Biggest Loser."

"Learning how to eat is fundamental," said Thomas, who lost 185 pounds over nine months. "And contrary to popular belief, healthy eating can be both very tasty and economical."

In front of the crowd, Hedetniemi prepared three healthy meals as part of a daily menu: a pomegranate and fig breakfast parfait, an apple-encrusted autumn lunch salad, and a vegetable pasta dinner dish.

The USA Science and Engineering

## Conferences focus on clinical research nursing

The specialty of clinical research nursing will be front and center over three days this month as Clinical Center Nursing and Patient Care Services co-hosts the Second-Annual International Association of Clinical Research Nurses (IACRN) Conference and hosts its own pre-conference, Clinical Research Nursing 2010 (CRN2010): Nursing Practice at America's Research Hospital.

"Clinical research nursing encompasses the care that is required because of the condition the patient has and any work that is necessary for the clinical research study," said NPCS Chief Nursing Officer Dr. Clare Hastings. "If the person has diabetes, a clinical research nurse takes care of the diabetes. There is also serial sampling, blood draws, and other procedures that are part of the protocol."

CRN2010 is an initiative launched in 2007 following a review of the department that encouraged NPCS to share the specialized nature of its practice. A team of nurses worked to define the domain of practice through interviews, review of clinical research nurse job descriptions, and review of relevant literature. They narrowed their findings to five dimensions that represent the specialty.

"CRN2010 was the basis for our strategic plan, and we feel very good that we accomplished what we set out to do," Hastings said.

The pre-conference on November 17 in Masur Auditorium will summarize the findings of CRN 2010 and invite clinical research nurses from other institutions to provide feedback on how the initiative's products are applicable at their hospitals. A panel of CC nurses with different roles and a tour of the hospital

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# NHGRI director calls on Clinical Center to influence genomic medicine gains

By Britt Ehrhardt

Technology is "catapulting us into the era of genomic medicine." So forecast Dr. Eric D. Green, director of the National Human Genome Research Institute, in his Clinical Center Grand Rounds lecture on September 22: "Sequencing Human Genomes Circa 2010."

Speaking seven years after the completion of the Human Genome Project, which first sequenced the DNA that constitutes the human genome, Green described how genetic information enhances medical decision-making at the NIH and other institutions. He described genomic medicine as care in which a patient's personal genetic information determines the type or amount of treatment received.

"The ultimate goal is to realize the potential of genomic medicine for improving health care," he explained. "What I passionately want to see is the Clinical Center playing a major role in that."

Green highlighted rapid advances in technology and cost reductions as key accomplishments of his field over the past decade. New technologies produce a large amount of data on the genetic makeup of individuals. Protecting these data, and sifting it for information to guide medical treatment, will remain key issues.

"This is the grand challenge," said Green. "We have this technological capability, and here [at NIH] we have before us this incredible opportunity to marry genomics and genome sequencing capabilities to all sorts of problems that really rest at the heart of why we have a Clinical Research Center."

Green predicts that more

genetics training will be required of health professionals in the future. The NIH, especially the NHGRI and the CC, will continue to have key roles to play to "raise the genomic literacy of the general public," said Green.

Green shared the stage with Dr. Leslie G. Biesecker, chief of NHGRI's Genetic Disease Research Branch, who made a presentation on "Clinical Annotation of Genomes: Challenges and Opportunities." Green, previously NHGRI's scientific director, was named the institute's director in November 2009. He joined the NIH in 1994, with the then National Center for Human Genome Research.

Clinical Center Grand Rounds are held in Lipsett Amphitheater each Wednesday at noon. Archived video recordings of this and other past lectures are available at <http://videocast.nih.gov>.



Dr. Eric Green was named director of the National Human Genome Research Institute in November 2009. He spoke in September on the role of the Clinical Center in advancing genomic medicine.

## CC nursing reveals findings of four-year initiative

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with presentations on the units will also educate attendees, many from institutions in the Clinical and Translational Science Awards network. The process of CRN2010 has benefited NPCS, in addition to contributing to the field, Hastings said.

"It's really gotten us focused on the core work that we do and how we can make that more consistent and of the best possible quality," she said.

CC nurses are now publishing findings and working toward tools that would support a certification program in the future. They are working closely with IACRN on that idea.

The IACRN conference—The Road Ahead: Establishing the Specialty of Clinical Research Nursing—will be held November 18 and 19 in the Natcher Conference Center (Building 45). Acting chief of the CC Bioethics Department Dr. Christine Grady will present the conference keynote speech and Hastings will deliver the Distinguished Clinical Research Nurse Lecture. Julie Kohn, CC nurse consultant, will present on Clinical Research Nurse Competencies.

The CRN2010 pre-conference is free and open to those interested. There is a fee to register for the IACRN conference. Visit [http://www.cc.nih.gov/nursing/events/iacrn\\_2010.html](http://www.cc.nih.gov/nursing/events/iacrn_2010.html) for information on the former and <http://iacrn.memberlodge.org/> for more on the latter.

### Clinical Center News online:

[www.cc.nih.gov/about/news/newsletter.html](http://www.cc.nih.gov/about/news/newsletter.html)

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*Submissions may be edited.*

## Nutrition Department launches fresh, more seasonal patient menu

More fresh foods, more variety, redesigned layout. The Clinical Center Nutrition Department rolled out its revised patient menu this month.

The new menu replaces some frozen foods with fresh versions. For example, fresh spinach replaces frozen spinach on the dinner sides menu. The Fall/Winter seasonal menu also offers more variety, adding shrimp, pork chops, beef stew, baked sweet potatoes, and a variety of new soups, including a soup of the day. The menu is without added trans fat.

"The Clinical Center strives to be ahead of the curve when it comes to our room service program," said Jennifer Widger, Food Service Section chief, comparing the new menu to the options offered at other hospitals. "We provide a 'build-your-own' concept for many of our items, such as a salad bar and pasta bar, so patients can combine whichever ingredients they would like."

Bryan Ewsichek, NIH Office of Research Services Division of Medical Arts graphic designer, revised the menu layout. Feedback from patients and staff spurred the revision.

"The menu needs to be accessible to a broad audience, and information organization is always the priority," said Ewsichek. "The real fun comes in choosing typefaces and design elements, and creating an overall style. This menu is definitely elegant. It has an upscale feel without being stuffy."

"The menu revision is truly a display of great team work with many individuals participating in various aspects of the project," Widger said.

The recipes are developed by the department's certified executive chef, Robert Hedetniemi. Every new menu item is then thoroughly re-

viewed by clinical dietitians who determine if the item complies with more than 150 diets. Nutrition Department food preparation staff and phone operators receive training on new recipes and participate in a taste test, so they can answer questions about items. Lee Unangst, dietitian informaticist and manager of the department's complex computer system, insures ingredients and nutrition information is accurate and correct.

With a diverse patient population, the CC must work to feed a variety of diets.

"Because we serve patients from all over the world, there are, of course, different food preferences," explained Widger, describing how her group found a source of halal-certified meat for a Muslim patient who came to the CC for a lengthy stay. "When we get a patient request, we honor it."

## Informatics dept honored with excellence award

The Clinical Center Department of Clinical Research Informatics (DCRI) was recently recognized with a 2010 Circle of Excellence Award from health-care company Allscripts for its achievements in using advanced technology to improve the quality of its patient care.

The department responded to the CC goal of improving the percentage of doctors who signed their orders within 72 hours of entry from 50 to 90 percent. In June, the DCRI deployed a medication logic module within the Clinical Research Information System. The new module presents the signature manager screen to physicians with unsigned orders at login. Countersignature compliance almost immediately rose to 90 percent and has remained there since implementation.

This new functionality improved regulatory compliance and patient safety by ensuring that orders are promptly reviewed by the appropriate provider. This initiative, in addition to several other information technology enhancements, earned the DCRI a 2010 Circle of Excellence Award, which recognizes health-care organizations for demonstrating significant achievements in the areas of process improvement, clinical adoption, and collaboration. The award was presented to the DCRI at the Allscripts annual conference in San Diego on October 12.

Additionally, the CC was recognized in a second award category for one employee's achievements. Lincoln Farnum, DCRI developer and clinical analyst, won an award for active participation in the Allscripts ClientConnect program. Farnum regularly posts documents, offers feedback and advice in discussions, and posts blog entries. He has also served as an active member of the ClientConnect Advisory Group.

The new "elegant" Clinical Center patient menu was designed by Medical Arts and features fresher ingredients and new offerings from the Nutrition Department.

# Emergency preparedness partnership put to the test in drill

Clinical Center staff prepared for the worst October 14 with the sixth-annual multi-agency Emergency Preparedness Exercise. The drill is a simulation of how area medical facilities would handle a catastrophic event. The CC practiced managing an overflow of patients from DC hospitals that were "full" after a fictional event caused a large volume of casualties.

The Bethesda Hospitals' Emergency Preparedness Partnership—consisting of the National Naval Medical Center, Suburban Hospital Health Care System, the CC, the National Library of Medicine, and the NIH Fire Department and Hazardous Response Units—was formed in 2004 to stand ready to provide a rapid and sustained medical response to the community during a catastrophic event in the National Capital Region.

For the first time CC employees simulated triaging and admitting stable patients from both the National Naval Medical Center and Suburban Hospital Health Care System. In prior years, mock patients were only transported from Suburban Hospital.

Another new component to this year's simulation was the use of a Radio Frequency Identification (RFID) system. RFID, a technology used in a variety of industries to track and identify items, allowed for staff to quickly track and access vital patient information via a wireless local area network. Mock patients were outfitted with a bracelet containing a GPS-like RFID chip before their departure, and their arrival was transmitted to a computer system that allowed CC staff to view movement at Suburban and arrival at the CC surge area. Also, new technology for medical data exchange that allows for electronic transfer of patient information including medical history, medications, allergies, and problem lists was tested.

Command centers communicated clearly and efficiently through a variety of avenues, from radio communication compliments of the NIH Radio Amateur Club to videophones that allowed callers to speak "face-to-face" on small screens in each command center.

Down the hallway CC Nursing and Patient Care Services tracked patient census and staff placement, as well as coordinated the labor pool for any additional CC staff members asked to join the effort.



Retired NIDCR researcher Dr. William Hook of the NIH Radio Amateur Club connected the Clinical Center to other Emergency Preparedness Exercise surge areas via adjunct radio communication.



Jacqueline Reid, Clinical Care Medicine Department program assistant, managed the flow of electronic patient data through the medical information transfer system at the drill. The technology, new to the preparedness exercise this year, gets staff up to date on arriving patients.



Mary Beth Price (right) from Nursing and Patient Care Services welcomed mock patient Lynne Spivack to the Clinical Center as Adam Russell of Hospitality Services took her to the triage area.

# Hospital recognizes community of caregivers with day of activity

Chronic or long term illnesses can be stressful not only for the patient but for those who provide long-term care to their loved one. In recognition of the support provided by family and loved ones to patients participating in clinical research, the Clinical Center celebrated National Family Caregiver Month with Family Caregiver Day on November 1.

Research shows that family caregivers are at increased risk for health, emotional, financial, and work-related problems. In addition, family caregivers often find themselves in positions that make it difficult to maintain their own health.

"Caregivers report a lot of disruption in their sleep, high levels of physical and emotional fatigue, and high levels of distress that might even suggest that they need clinical intervention," said LCDR Dr. Margaret Bevans, clinical nurse scientist in Nursing and Patient Care Services. According to Bevans, research in the chronic care setting shows that individuals who provide informal care to loved ones exhibit not only an increase in morbidity, but may also have an increased risk of mortality.

The agenda for Family Caregiver Day included a presentation from guest speaker Dr. Richard Schulz, a nationally recognized expert in the field of caregiver research. Schulz is the director of the University Center for Social and Urban Research at the University of Pittsburgh. His talk—"Reflections on Three Decades of Research on Caregiving"—described some of the psychosocial and general

health issues encountered by family caregivers, along with intervention research and implications for policy.

As a caregiver for her husband, Nancy Bradfield of Harrisonburg, Va., understands how hard it can be. "For people who are just coming into a situation where their loved one has been diagnosed with a serious illness, it can be quite a challenge," she said. "I think that if you can tell yourself that you need to stay as optimistic as possible, it helps a lot. And try to communicate as well as you can with the patient."

Other scheduled events on November 1 included an information fair and expo; an interactive art project; sessions with mental health and social work workers; and fitness, yoga, and massage demonstrations.

"We are already caring for a unique population, so we need to think of our caregivers as having to deal with unique challenges. They are managing not just the clinical needs of their loved ones, but they also need to understand and interpret the needs associated with the clinical trial their loved one is enrolled in. This is an added complexity," said Bevans.

She is currently investigating the effectiveness of problem-solving education in caregivers and patients who are receiving stem cell transplantation. "We are trying to determine if caregivers who are supporting individuals undergoing a stem cell transplant also report levels of emotional distress or symptoms that will put them at risk for health issues in the future," she said.

Ideally, Bevans would like to see caregivers maximize the resources and education available to them while at the CC, giving them the knowledge and resources necessary to stay healthy when they return home.

"If you think about the role of the caregiver—the commitment to their family, their employer, their own health—one can easily recognize the scope of the caregiving experience. It's much broader than what we see when they are with us," she said.



Associate librarian Martha Caro (left) and head librarian Marie Kaplan of the CC Patient Library offered a variety of printed, audio, and electronic resources for caregivers.



Full-time caregiver James Hancock relaxed with a seated massage from Philip Pinkney, of the Potomac Massage Training Institute.



Asky Maris works a paper cutout of a hand to add to the "Collage of Helping Hands" interactive art project offered by the Rehabilitation Medicine Department Recreation Therapy Section.

# Doppman imaging lecture presents on "The Evolution of PET"

The Clinical Center and its Radiology and Imaging Sciences hosted the Tenth Annual John Doppman Memorial Lecture for Imaging Sciences on October 27.

Dr. Carolyn Cidis Meltzer, William P. Timmie Professor and Chair of Radiology, as well as associate dean for research at Emory University School of Medicine, was the speaker. She is also director of the Emory Center for Systems Imaging. Meltzer spoke on "The Evolution of PET: Images of Progress."

Positron emission tomography (PET) is an imaging technique that provides information about the function and metabolism of the body's organs.

"So much has happened in this field, and some of it here at NIH," she said. "PET is a unique technology that has had many faces and many lives over the last 50 years, and many more to come."

The Doppman lecture is held in honor of the late chief of the CC's former Diagnostic Radiology Department, and members of his family were in attendance in Lipsett Amphitheater.

Dr. David Bluemke, director of Radiology and Imaging Sciences, introduced Meltzer, who he called "a leader in translational imaging methods."



Dr. David Bluemke, director of CC Radiology and Imaging Sciences, presented Dr. Carolyn Cidis Meltzer of Emory University School of Medicine with a certificate noting her October 27 lecture on PET imaging, the Tenth Annual John Doppman Memorial Lecture for Imaging Sciences.

## CC executive chef demonstrates healthy eating at science festival

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Festival aims to invigorate the interest of the nation's youth in science, technology, engineering, and math. More information about the CC's participation in the event, including Hedetniemi's recipes, is available at [www.cc.nih.gov/science-expo](http://www.cc.nih.gov/science-expo).



Britt Ehrhardt looks on as a science festival attendee spins the prize wheel, completing the Pack a Lunch with Punch science demonstration.



CC executive chef Robert Hedetniemi prepared three healthy meals as part of a daily menu during his demonstration at the USA Science and Engineering Festival on October 23 while Pete Thomas of "The Biggest Loser" discussed his weight loss with the crowd.



Former Clinical Center nurse Lillian Posey (left) and her husband Andrew brought their daughter, Anita Posey, to visit the hospital 52 years after she underwent heart surgery here. They met with CC Director Dr. John I. Gallin to hear the latest developments from the center.

## Family of former CC patient and nurse support lung cancer research

It was a reunion of sorts for the Posey family from Austin who visited the Clinical Center on October 25. In 1958 at the age of four, Anita Posey was a patient at the hospital. Her mother, Lillian Posey, worked on the pediatric floor from 1963 to 1965.

After many years, the Posey family renewed their NIH connection in 2008 through a generous gift to the Foundation for the National Institutes of Health (FNIH). Recently they made a second gift to FNIH in support of lung cancer research under the direction of Dr. Philip Dennis, head of the Signal Transduction Section, Medical Oncology Branch and Affiliates, National Cancer Institute.

"Connecting those who want to give back to NIH, like the Poseys, is one of the ways we make it possible for individuals to support NIH science and discovery," remarked FNIH Deputy Executive Director Ann Ashby.

The family's October visit was jointly organized by the CC and the FNIH. It included a meeting with CC Director Dr. John I. Gallin, a tour of the new Hatfield Building, and a meeting with Dennis.

On touring the new building and thinking back to the old, Andrew Posey noted, "It was very primitive compared to this." Mrs. Posey recalled that in former days each pediatric patient was in a room with an adult patient so the adult could keep an eye on the child. Parents were not permitted to stay in the rooms as they are today.

Anita suffered from failure to thrive. She was 25 pounds when she was admitted and underwent surgery to remedy her patent ductus arteriosus, a condition where abnormal blood flow occurs between two of the major arteries connected to the heart. Her procedure was done by Dr. Andrew Glenn Morrow, a pioneer heart surgeon and the first chief of cardiac surgery at the National Heart Institute, the precursor to today's National Heart, Lung, and Blood Institute.

"Nowadays it's a piece of cake surgery," Anita said. "But back then, no one was doing it."

The patient "blossomed," according to her father Andrew. Today she has three children and a grandchild.

## Research rates Critical Care Med article impact

NIH Library informationist Judith Welsh presented at the NIH Research Festival on her findings of the literary contributions of the Clinical Center Critical Care Medicine Department (CCMD) compared to four academic organizations.

What she found was that the CCMD publications had a greater impact—based on an h-index calculation—than those at peer institutions.

Dr. Henry Masur, chief of CCMD, approached Welsh last year about seeing where his group stood in research productivity and impact, and how this could be measured objectively. He and Welsh identified the four most prominent critical care or critical care/pulmonary departments in the country. Welsh then did a Web of Science database search for publications by their full professors and associate professors and compared those to articles from tenured senior investigators in CCMD.

She limited her search to publications from professors and associate professors only while at their current institution, looking at both lifetime publications and articles from between 2003 and 2010.

"It was a big job," she said.

For each of the top ten authors from each institution and the CCMD, Welsh calculated the number of times their publications were cited by other authors and their h-index. The complicated algorithm communicates the N number of papers by the author cited N times. For example, one investigator had 38 papers cited 38 times each resulting in an h-index of 38.

The West Coast institution ranked highest in total number of times cited, but CCMD had the highest average h-index.

"There are a lot fewer people in the CCMD so that will affect the total number of citations and total number of articles," Welsh said. "This is just one way to assess productivity. It can't possibly be used alone."

While Masur concurs that these comparisons cannot be used by themselves to measure research quality, impact, or productivity, he has been persuaded by Welsh's work that the h-index analysis provides a useful and objective parameter for comparing departments.

Web of Science, the database Welsh used, and Scopus can be used to calculate the h-index. The latter searches more journals but from a shorter length of time, Welsh said. The NIH Library provides access to both the databases. Researchers can easily compute their own h-index values or contact the NIH Library for assistance.

# Upcoming Lectures

November 3

## Clinical Center Grand Rounds

Lipsett Amphitheater, 12 noon  
<http://videocast.nih.gov>

**25th Anniversary of National Institute of Nursing Research Insights Into the Role of Inflammation in Post-Traumatic Stress Disorder (PTSD) With and Without Depression**  
Jessica M. Gill, PhD, RN  
Assistant Clinical Investigator, NINR

## An Inflammatory Profile for Stroke Diagnosis and Outcome Prediction

Taura L. Barr, PhD, RN  
Special Volunteer, Tissue Injury Unit, NINR

November 10

## Clinical Center Grand Rounds

Lipsett Amphitheater, 12 noon  
<http://videocast.nih.gov>

**Contemporary Clinical Medicine: Great Teachers The Eradication of Smallpox: Only the First Chapter**  
D.A. Henderson, MD, MPH  
Distinguished Scholar at the Center for Biosecurity, University of Pittsburgh Medical Center; and Professor of Public Health and Medicine, University of Pittsburgh

November 17

## NIH Wednesday Afternoon Lecture Series

Masur Auditorium, 3 pm  
<http://videocast.nih.gov>

**Astute Clinician Lecture Genes Versus Fast Foods: Eat, Drink, & Be Wary**  
Helen H. Hobbs, MD  
Investigator, Howard Hughes Medical Institute; Director, Eugene McDermott Center for Human Growth and Development; and Professor of Internal Medicine and Molecular Genetics, University of Texas Southwestern Medical Center

November 24

## Radiology and Imaging Sciences Advanced Imaging Seminar

Doppman Conference Room, 9 am

## Advanced Applications in the PACS System

Sharon Eldor-Gerling  
Project Manager, Picture Archiving and Communication Systems Research and Development, Carestream

## Young patients find treats, not tricks, around the hospital

Spooks and superheros visited some Clinical Center patient units and departments when the Rehabilitation Medicine Department Recreation Therapy Section hosted trick-or-treating for pediatric patients on October 29.

"Trick or treating at the Clinical Center created an opportunity for pediatric patients to be 'just kids' for the afternoon," said Recreation Therapy Section Chief Donna Gregory. "It was great to see so many families laughing and having fun together."

About 30 children participated in the holiday event.



The Children's Inn resident pup Vi joined in the Halloween action, disguising herself as a bee.



Drew Robinson (left) of the Recreation Therapy Section dressed as Steve Urkel to trick-or-treat with patients Jessibeth Rodriguez (left) and Angelica Arias and Recreation Therapy Section chief Donna Gregory as an ice cream cone. Rastafarian Theodore Crowder handed out goodies on 5NW.