The Clinical Center Data Center (CCDC) houses more than 500 networked devices providing both CC and other NIH users access to data and applications 24 hours a day, seven days a week. As the technical capabilities of the CC grow, so does the systems need. The CCDC recently began migration to a new location in the Hatfield Building to remedy the physical size, power, and space limitations and geographic risks of the current CCDC in the older part of Building 10.

The new CCDC has been designed with redundant systems to minimize potential risk and maximize potential growth for the next 10 years, assuring system availability in the event of failure of any of the three major systems required for CCDC operation—power, cooling, and network. The design also minimizes physical risk due to environmental issues such as water intrusion from aging building infrastructure and failures.

Out with the old
The older center has lived in a space for more than 25 years that was never designed to hold such equipment. Servers are oriented every which way to allow room for support pillars and sit on a raised floor with only one foot of mechanical space underneath. That space is needed to distribute the chilled air required to keep the servers cool but the installation of power and network cables there can cause issues in air distribution. "The new data center is designed to alleviate the environmental and cooling issues of the current data center," said John Kocher of the CC Department of Clinical Research Informatics (DCRI).

Eight years after conceiving the idea of a move, and three years after a space was designated and design began, testing and acceptance of the new data center was completed on September 19. Migration of equipment into the new space started two days later.

A powerhouse with room to grow
The bright new space has the capacity for 100 server racks, but initially will be only 70 percent populated to allow for expansion in the next decade. "The physical size of the systems is shrinking, but the power needed is increasing."

continued on page 4
NCI branch chief recognized with Service to America Medal

Dr. Thomas Waldmann, chief of the National Cancer Institute Metabolism Branch, was honored with an “Oscar” of government service, one of nine Service to America Medals recognizing outstanding public servants presented at a gala in Washington, DC, on September 23.

Waldmann was given a Career Achievement Medal from the Partnership for Public Service for his cutting-edge discoveries that have led to effective treatments for previously fatal forms of T-cell leukemia, Hodgkin’s lymphoma, and multiple sclerosis.

“Tom is an icon—he’s dedicated to making science discoveries and moving them to the clinic where they can benefit people,” said Director of the Center for Cancer Research and NIH Scientific Director for Basic Science Dr. Robert Wiltrout.

Waldmann has been a creative pioneer in the field of cytokines—the molecules that control human immune responses—and developed the groundbreaking treatment Zenapax, which has contributed to reducing the body’s rejection of renal transplants and has been found useful against autoimmune diseases including multiple sclerosis, where Waldmann and coworkers achieved a 78 percent reduction in new brain lesions. In addition, Zenapax, when linked to the radionuclide Yttrium-90, was associated with a remission in more than 60 percent of patients with Hodgkin’s lymphoma who otherwise did not respond to any treatment.

In 1955, Waldmann came to NIH after graduating from Harvard Medical School—and he never left. “I thought I was going to be here for two years, but I became so excited with the opportunities to do research and the ability to develop our own drugs and produce these in a way that can be administered to people and be able to do my own clinical trials to treat patients,” said Waldmann. “It was not matched, not in industry, not in academia.”

Astute Clinician Lecture looks at genomics of inflammation

Dr. Daniel Kastner will give the Astute Clinician Lecture as part of the NIH Director’s Wednesday Afternoon Lecture Series on November 18 at 3 pm in Masur Auditorium.

Attendees will hear “Fever, Genes, and Histories: Adventures in the Genomics of Inflammation” from Kastner, clinical director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, as well as deputy director of intramural clinical research at NIH and director of NIAMS Translational Research.

The Astute Clinician Lectureship was established in 1998 through a gift from the late Dr. Robert W. Miller and his wife, Haruko. The series honors a US scientist who has observed an unusual clinical occurrence, and by investigating it, has opened an important new avenue of research.

Learn more at http://clinicalcenter.nih.gov/researchers/lectures/astuteclin.html.
Who you gonna call? At the Clinical Center, we don’t need ghostbusters, but we sure do need Messenger and Patient Escort Services.

The more than 40 escort employees field upwards of 10,000 calls per month for patient transport (about 23 percent of the requests) and movement of research specimens, blood products, and medications.

The department, recently brought under Hospitality Services, has integrated customer service standards and training to elevate their interactions with patients and other staff. The escorts have seen their morale elevate with the change.

“I love patient escort; I love my job,” said Shelia Genrette, training coordinator.

Signs in the escort office—behind the South Elevators on the P1 level—remind staff to introduce themselves and confirm patient identity and their location when taking a patient to or from an appointment, and outline the standards for frontline patient-care service.

Denise Ford, chief of Hospitality Services, emphasizes professional attitude and appearance. “Patient escorts feel good about what they do, and that shows in how they deliver service,” she said.

Service manager Bonita Witherspoon noted that since the shift in focus, her staff feel more like part of the CC community and enjoy their work more. “Before they saw it as just a job, but they view it differently now,” she said.

With the increased patient census, Messenger and Patient Escort Services has seen a surge in orders. As Genrette, and intake coordinators Chris Strickland and Nicholas Clarke explain their process, the phone rings off the hook. Each call and computer order is entered into their system that records what they do and how much time it takes them to do it.

“We measure the workload and how we perform, so we can adjust and improve,” Strickland said.

High-volume requests, like stat orders and those from the Pharmacy Department, get dedicated escorts. The pharmacy’s tube system is used as much as it can be, but many research medications cannot be agitated and must be moved by hand.

Messengers check the outpatient clinics, phlebotomy, and inpatient units on rounds every hour. Putting orders in the system correctly and placing specimens in the proper pick-up locations helps the escorts expedite the process of translational research.

“We’re not just an escort; we’re partners in research,” Clarke said. “It’s important to communicate with us so we can help you complete your task.”

Strickland echoed his co-worker, “It’s all about communication. Everyone in this building is a customer to another depart-

Video contest focuses on students’ role in increasing diversity

Are you or do you know a young college student who dreams of pursuing a medical degree?

The Association of American Medical Colleges (AAMC) has launched its second AspiringDocs.org Video Contest, this time asking students—“What motivates you to increase diversity in medicine?”

Students are asked to submit a short video in response to the contest question. Ten winners will receive $500 toward the cost of applying to medical school and a suite of AAMC publications, including The Official Guide to the MCAT®.

In an increasingly diverse world, it is necessary to have a physician workforce that can identify with the cultural needs of different patients. The online video contest gives undergraduate college students the chance to receive assistance toward becoming a doctor by explaining how they plan to play a role in meeting this demand.

Submissions should be no longer than two minutes, and answer the question: What motivates you to increase diversity in medicine? Upload the video to YouTube, and fill out the entry form at www.aspiringdocs.org/onlinecommunity/videocontest. Visit www.youtube.com/aamcvideo for updates and to see videos featured online. Entries are due at midnight, EST on December 1.

The video contest is a feature of the AAMC’s AspiringDocs.org campaign, a Web site and outreach effort to increase diversity in medicine. It also helps students understand and navigate the medical school application and admission process, prepare for the MCAT, and apply for financial aid.

For official contest rules and more information visit www.aspiringdocs.org or e-mail videocontest@aamc.org.
Discover a sabbatical like no other

The Clinical Center is accepting applications for a new sabbatical program in clinical research management. This initial offering is a pilot project.

“This program will provide management training to help ensure that medical research programs are safe, ethical, and efficient. The sabbatical offers flexible and specialized educational opportunities in this field and gives students the opportunity to work and learn with the full complement of clinical research experts at NIH and components of the Department of Health and Human Services, including the Food and Drug Administration,” said Dr. John I. Gallin, Clinical Center director. “The program will help demystify the complexities of governmental regulatory agencies while providing an opportunity to achieve excellence in clinical research management.”

The program is open to clinical investigators, health-care managers and administrators, and others who oversee clinical trials, including international research studies.

“Participants select electives from six core modules that offer exposure to all aspects of the clinical research environment infrastructure,” said Dr. Frederick P. Ognibene, director of the CC Office of Clinical Research Training and Medical Education and deputy director for CC Educational Affairs and Strategic Partnerships.

The core modules are: critical infrastructure, support services, legal and regulatory infrastructure, communications and outreach, strategic management, and funding opportunities. “All have been structured to provide the didactic training and hands-on experience required to manage a clinical research program of the highest quality,” Ognibene said.

Electives within the modules include topics such as protocol writing and tracking, bioethics and human subjects’ protections, international research, informatics, research nursing, development of biologicals, patient recruitment, and budget management.

Re-engineering the clinical research enterprise—including training in the discipline—is one of the initiatives in the NIH Roadmap for Medical Research, launched in 2004. “The Clinical Center’s new sabbatical is an innovative approach to assuring leadership in clinical research, which will lead—in turn—to more rapidly moving advancements in medical science to improvements in health and health care for all. Our hope is that participants will go on to help lead major clinical research programs in the United States and abroad. We are pleased to be at the forefront of this endeavor,” said Gallin.

There is no fee for participating in the program. For more information, visit the program Web site: http://clinicalcenter.nih.gov/training/sabbatical/index.html or contact Ognibene at 301-496-9425 or ccsabbatical@mail.nih.gov.

Data center

said Kocher. Server consolidation and virtualization will further reduce the physical footprint, allowing room for growth. Even though these newer, smaller systems take up less space, they have larger power and cooling requirements. Those projected increases were designed into the new CCDC infrastructure to ensure the CC would not outgrow the new space.

The power for the equipment is routed through cable trays located above the racks, which frees up the space below the raised floor for air circulation. An extra foot (up to two) down there doesn’t hurt, either.

The power for the data center comes from two 450-kilowatt uninterruptable-power-supplies. They run concurrently to share the power load, but either could handle the entire CCDC power needs. Different power feeds from Pepco work to keep at least one up and running. Just in case it is needed, a 1.5-megawatt generator looms outside the CC ambulatory entrance. It can generate enough power to support a small community, said Kocher.

As a last resort, if there is a problem with the dedicated CCDC generator, the data center can run off the CRC emergency generator system.

Keeping it dry

A major improvement of the new space is protection from the frequent flooding that has plagued the old Building 10 data center. “One burst pipe can bring us down,” Kocher said of the old CCDC.

An internal tin roof protects the new set-up by catching any water from a leak and sending it through a gutter to the hallway, away from the important equipment. Water sensors have been installed both in the internal roof and under the raised floor to give an early indication of potential water-related issues. This preplanning has already proven its worth by redirecting water from major leaks three times in the past six months.

DCRI expects the migration to be complete by March 31, 2010.

The large emergency generator outside the CC’s ambulatory entrance can provide 1.5 megawatts of energy—enough to power a small community—at a moment’s notice, even in the dead of winter thanks to an advanced heating system.
Clinical Center gets an outstanding rating from The Joint Commission

Surveyor calls hospital “awesome”

The element of surprise did not affect the favor of The Joint Commission on their site visit in early October.

The health-care-organization accrediting and reviewing non-profit arrived with no advance warning early the morning of October 6 to begin a three-day investigation into the Clinical Center’s facilities and activities to evaluate our commitment to certain quality standards.

“This is the best hospital I have ever seen,” one of the surveyor reports read. CC Director Dr. John I. Gallin presented The Joint Commission’s findings at a town-hall meeting on October 8. The CC received an outstanding score—compared against 301 standards the surveyors identified only six areas requiring improvement—and the compliment, “Awesome!” from another surveyor. The Joint Commission lauded the CC for our culture of safety, commitment to the patient mission, and knowledgeable staff.

Gallin thanked everyone who helped earn such a high rating—the CC staff, institute and center partners, Offices of Research Facilities and Research Services, and the patients. Survey coordinator Laura Lee got a special shout-out.

“Exercise your creative muscle and sweet tooth”

As the days seem shorter and the scarves come out, thoughts turn to the Clinical Center Gingerbread House Decorating Contest.

Last year the Hospital Epidemiology Section took first place for their Jingle Jungle treehouse, and this year’s sixth-annual contest promising to pull another round of inventive entries. All staff are invited to participate—assemble a team and e-mail Ann Marie Matlock at amatlock@cc.nih.gov by November 13 to join in the fun. Information on the rules and on when and where to pick up the houses will be sent out later this month.

The houses will be displayed in the atrium from December 4 through the holidays. CC staff, patients, and visitors vote on their favorite house. Winners will be announced on December 18, and the top three will be awarded a prize.
CTSA Pharmaceutical Assets Portal: Matching academia and industry for drug repositioning

Drug repositioning—exploring new uses for a drug originally created for another purpose—has been garnering attention in the last few years as the pharmacological effect of some compounds has reached beyond developers’ first focus. The new Clinical and Translational Science Awards (CTSA) Pharmaceutical Assets Portal connects pharmaceutical companies, the national CTSA consortium and the NIH intramural research community to improve information and expertise exchange regarding investigational drugs shelved for various reasons at the clinical stage of development, so that repositioning can be explored.

Many compounds that were shelved due to lack of efficacy for their original intended indication or due to marketing considerations—such as drugs for “orphan diseases”—might be re-positioned or repurposed via development of a new indication, a new formulation or a new combination with an existing drug.

“Even for drugs that are currently in use for their original indications, discovery of new biological/molecular targets in many diseases is the underlying reason to explore the actions of ‘old drugs’ for potential new indications,” said Dr. Juan Lertora, director of the Clinical Center Clinical Pharmacology Program. Aspirin, for example, is not only for fever and pain anymore, but proven as a successful agent to prevent and treat heart disease.

Information on shelved assets has never been made public, and thus far has remained unknown to researchers outside of the originating companies. The value of these assets, however, is tremendous due to their previous administration to healthy volunteers and/or patients and the availability of human safety data.

Via the portal at www.ctsapharmaportal.org, the CTSA academic community and NIH intramural researchers will be able to match their scientific interests with the repositioning needs of industry. Integration of academia into repositioning efforts will substantially increase the knowledge base and the pool of methodologies available for proof of concept (“does it do what it should”) studies. These matches may help result in an increased number of approved drugs for new indications, and as a result, in improved prevention, treatment, and cures for disease.

Join the National Center for Research Resources, the Clinical Center, and the National Cancer Institute on December 4 from 9 am to noon in the Lipsett Auditorium for a discussion featuring speakers from the Pharmaceutical Research and Manufacturers of America and NIH investigators involved in drug repositioning efforts.

To register and learn more, visit www.palladianpartners.com/pharm-assets. Admission is free, but registration is recommended due to space limitations. The deadline is November 25.

Polar Bears on Parade

Kathryn Foat, education advisor for Polar Bears International (PBI), stopped by the 1NW pediatric unit on October 27 to teach some interested young patients—from left: Anjelica Areas, Rudi Belen, and Cristopher Peralta Portes—about the great, white animal using a cast of a male bear head.

“Scientists predict that, if current warming trends continue in the Arctic, two-thirds of the world’s polar bears could disappear by 2050,” cited the PBI Web site. The non-profit organization is dedicated to the worldwide conservation of the polar bear and its habitat through research and education. Experts estimate the polar bear population between 20,000 and 25,000—with more 60 percent of them in Canada—but climate change is threatening their icy home.

Foat, also vice president of interpretation, education and volunteer programs at The Maryland Zoo in Baltimore, was on campus to advocate for PBI at the Clinical Center’s Combined Federal Campaign charity fair (learn more on page 8). The organization also donated a basket for the CC’s CFC basket drawing.
News Briefs

Toolkit aims to ensure informed consent
A new product from the Agency for Healthcare Research and Quality (AHRQ) will help researchers obtain potential research participants’ informed consent and authorization to use their health data in accordance with the Health Industry Portability and Accountability Act (HIPAA).

The AHRQ Informed Consent & Authorization Toolkit for Minimal Risk Research provides information on how to ensure that people of all health literacy levels understand what studies entail and to what they are consenting when they agree to participate. AHRQ developed the toolkit because researchers often use long consent forms that potential study participants can find difficult to comprehend. Their research has also shown that a large proportion of study participants did not understand what they had consented to when they joined a study.

The AHRQ toolkit is based on real world experience with HIPAA and was tested by researchers from Boston University. It includes recommendations for improving the informed consent and authorization process, sample consent and HIPAA authorization documents in English and Spanish, recommendations for adapting and testing the documents, statutory requirements and exceptions, and a tool for researchers’ certification of consent and authorization. The toolkit is available at http://www.ahrq.gov/fund/informedconsent.

Area supermarkets benefit the NIH school students
The NIH Children’s School has had a long association with the Giant and Safeway supermarkets’ school drives. Each store donates funds to local schools based on customers’ purchases. To support the NIH school, register your Giant or Safeway card in the program and designate our school as the recipient of the points you accrue with each buy. Over the years, the NIH Children’s School has been able to purchase equipment and materials as a result of these stores’ support.

Registration for the Giant A+ Bonus Bucks Program can be done at the stores or online at www.giantfood.com/aplus using the NIH Children’s School ID: 02983. Interested parties can also call the school’s office at 301-496-2077 to register and to get more information. All that is needed is a free Giant club card; participants can register for more than one school.

Safeway’s system requires enrolling with the eScrip program, www.escrip.com. Our school’s Group ID number is 149030534. By registering with eScrip, purchases made at some other establishments will earn points for our school.

The drive will end in March, giving you plenty of opportunity to benefit the NIH Children’s School each time you stop to stock your fridge or grab a gallon of milk.

Phlebotomy gets an upgrade
Phlebotomy moved into a newly renovated space at the end of summer. More specimen-draw booths and a more open and cheerful patient waiting area allow the busy department to accommodate visits more efficiently and comfortably. Each phlebotomist now has a newly renovated individual draw station, which increases patient confidentiality and privacy. The area is now centrally located and equipped with state-of-the-art technology. Above, chief medical technologist Gina Mattia (right) reviews safety procedures with phlebotomist Tarsha Price. “I am proud to oversee the Department of Laboratory Medicine phlebotomy operation in this brand new space where barcode technology in every draw booth has enhanced patient safety,” Mattia said of the new space. Below, lead phlebotomist Linda Arnett (left) enjoys her new work area with phlebotomy supervisor Veronica Washington.
Recreation therapist named Clinician of the Year by her peers

A surprise to no one but her, Clinical Center recreation therapist Robin Greenfield was named Clinician of the Year by the American Therapeutic Recreation Association (ATRA) at its annual conference in Minneapolis in October.

Greenfield knew nothing of the nomination or her win until the conference’s opening ceremony when she was called before a couple hundred of her peers to accept the honor.

“It’s very humbling. I’m very honored. There are certainly a number of wonderful specialists,” Greenfield said.

With more than 24 years in the field, she returned to the NIH in May (after working for the CC from 1988 to 1997) following stints in Bel Air, Texas; Atlanta; and New Orleans. Greenfield’s ATRA involvement includes a membership of more than 15 years and service as a program chair for the 2001 conference, a 2001 awards committee member, and co-coordinator of the ATRA Mental Health Treatment Network.

She was nominated by her coworkers Marcia Smith, clinical coordinator of the CC Rehabilitation Medicine Department Recreation Therapy Section, and fellow recreation therapist Karen Perkins. Smith lauded Greenfield for her “ability to assess the patient thoroughly and accurately” and for “researching the appropriate intervention to use with the population she is going to serve in order to provide outcome-oriented interventions.”

The nomination noted how Greenfield has implemented or improved a variety of patient wellness programs such as chair yoga, rehabilitation using the Wii game system, and intergenerational activities. Her adaptation to a patient’s condition—whether an epileptic confined to his or her room for monitoring or a brain tumor patient with compromised cognitive skills—was also cited in the nomination.

The ATRA Frank N. Brasile Clinician of the Year is given annually to one distinctive member of the association. “She is a consummate professional who embodies what our profession represents,” said Smith of this year’s awardee. “She truly works to improve the quality of life of her patients.”

CFC charity fair puts mission on display

The Clinical Center welcomed charities participating in the Combined Federal Campaign to publicize their missions at the first-annual CC CFC charity fair over two weeks in October. Attending were local and national groups supporting various causes—from the Boys and Girls Club to the National Environmental Education Foundation. Visiting on October 19 were Earth Share, So Others May Eat, and the Whitman Walker Clinic.

The CFC continues through the end of the year. Learn more about the different organizations participating and how to donate and identify your keyworker at http://intranet.cc.nih.gov/cfc/.

Lectures & Events

All lectures will be videocast at http://videocast.nih.gov.

November 4, 2009

CC Grand Rounds
Lipsett Amphitheater, 12 noon

Contemporary Clinical Medicine: Great Teachers
International Studies of HIV Transmission and Prevention in Africa
Thomas C. Quinn, MD
Associate Director for International Research, Division of Intramural Research, NIAID
Senior Investigator, Section of International HIV/STD Research, Laboratory of Immunoregulation, NIAID

November 18, 2009

Wednesday Afternoon Lecture Series
Masur Auditorium, 3 pm

Fevers, Genes, and Histories: Adventures in the Genomics of Inflammation
Daniel Kastner, MD, PhD
Chief, Genetics and Genomics Branch, NIAMS
Clinical Director, NIAMS
Director of Translational Research, NIAMS
Intramural Research Program
Deputy Director, Intramural Clinical Research, NIH