



Jim Wilson (left) and Fred Manuel visit the Hatfield Building's dedicated mechanical space on the second floor to check on an exhaust pipe that manages air flow in the laboratory below.

Hatfield Building's mechanical space serves as model for future projects

To the untrained eye, the mechanical space on the even floors of the Clinical Center's Hatfield Building is a maze of wires, tracks and pipes. Architects and engineers, however, understand the area dedicated to keep unseen the tweaks necessary to run the hospital.

A recent visit from professionals planning an animal holding facility between NIH Buildings 7 and 9 gave the CC's Office of Space and Facilities Management (OSFM) a chance to show off the space they reserve for easy adjustments and corrections to plumbing, wiring and air ventilation.

"The mechanical space is paramount for quality care and quality assurance," said Sara O'Neil-Manion, principal at O'Neil & Manion Architects, the firm planning the new facility. "If you don't have adequate space and your mechanical systems don't get maintained, you get real issues with the system performance."

The Hatfield Building, which opened in April 2005, features patient care and laboratory areas on the odd floors, while the even arms of the building off the center atrium house the facility infrastructure.

There lies information technology cabling for electric and Internet access, chilled water systems to keep rooms at a suitable temperature for advanced research equipment, airflow controls to easily make a specific room negative or positive pressure, and transportation tracks to bring supplies from storage to the units and labs.

The separation of these service materials into an unseen but accessible area allows for important patient care and research activities to continue uninterrupted and also speeds the alteration process for maintenance and repairs.

"The NIH is known for rapid response to public health issues, and this design allows us to be flexible at a relatively quick pace," Debra Byram, chief of the OSFM, said.

"When we designed the Hatfield Building, there were only a couple facilities in the country with this set-up," said CC Director Dr. John I. Gallin. "This design is truly a testament to the Clinical Center's commitment to research and patient care, and I am glad other institutions can learn from our experience and implement the same in their architecture."

Pharmacogenomics personalizes drug prescribing

The Clinical Center initiated a formal pharmacogenomics testing program Sept. 19.

Pharmacogenomics, also called pharmacogenetics, is the use of information about a person's genes to choose drugs and drug dosages that are likely to work best for that individual.

"Driven by the deciphering of the human genome, the discipline of pharmacogenomics has become an important vehicle to increase patient safety over the past decade," said Dr. David Henderson, deputy director for clinical care.

The CC's program is focused initially on three medications – abacavir, allopurinol and carbamazepine. The Department of Transfusion Medicine is able to test for human leukocyte antigen, or HLA, gene variations that may predict severe reactions to these medications, such as fever, hypotension, skin rash, and more severe conditions like Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis.

"These are fortunately rare reactions," explained Dr. Juan Lertora, director of clinical pharmacology. "But they can be life-threatening."

A clinical decision support (CDS) tool within the Clinical Research Information System provides researchers with a mechanism to check for relevant HLA variants at the time of drug ordering. Logic built into the CDS program also provides guidance to the prescriber as to the recommended course of action.

In the future, drugs will be added to the program where knowledge of gene variants can be used to maximize therapeutic efficacy or reduce the potential for drug-related toxicity.

Added deputy chief of the Pharmacy Department Dr. Barry Goldspiel, "Pharmacogenomics is another piece of the puzzle to make sure the patient gets the right drug and the right dose."

Volunteer celebrates 300 platelet donations

Elmer Sappington certainly doesn't consider himself a hero. Yet it is the quiet dedication of this Altoona, Pa. grandfather that has earned him a place of honor in the NIH Blood Bank for giving more than 300 platelet donations during the past 40 years.

Platelets are small blood cell fragments that help the blood to clot, which prevents excessive bleeding. Each year, more than 30,000 units of platelets are transfused at the Clinical Center to treat patients here undergoing cancer therapy or stem cell transplants, or with other diseases that disrupt platelet production in the bone marrow.

Healthy people can donate platelets through a process called plateletpheresis. Blood flows through a needle in one arm into a machine that separates, concentrates and collects the platelets. Red blood cells and other parts of the blood are returned to the volunteer through a needle in the opposite arm.

Sappington started donating at the NIH in 1972 when his sister was being treated at the CC for leukemia. Back then, he said, the donation process was much different.

"It was a four-hour ordeal and it was a four-foot, by four-foot, by four-foot machine," said Sappington. "There weren't any radios or videos to watch or listen to. You were dedicated to what you were doing completely."

Decades later, the donation process has changed dramatically, and now Sappington said he can donate in a little more than an hour – about the time it takes to watch a video and finish his hot chocolate. He makes the seven-hour roundtrip once a month.

"He has come in every month for years and years and years, and he's just a great, happy person," said Monica Riordan, a CC apheresis specialist.

His dedication earned Sappington a nomination from the NIH Blood Bank staff for the Fenwal™ Hall of Fame award from the makers of the plateletpheresis machine. He was chosen as one of 12 recipients this year and will be featured in the company's 2013 calendar.

"People need all the help they can get. If you became disabled for whatever reason, you would want someone to help you," Sappington said. "It's the right thing for everybody."



Hal Wilkins (left), NIH Blood Bank recruitment specialist, presented long-time platelet donor Elmer Sappington with a Fenwal™ Hall of Fame award from the maker of the platelet separation machine.

Know where to find help before an emergency



Do you know where help is if you need it? New signage announcing automated external defibrillators (AED) in the Clinical Center should call attention to the life-saving machines.

AEDs introduce an electrical current to the heart to reestablish a proper rhythm in the case of a cardiac incident.

"It is important to know where the AEDs are before there is an emergency so you can act fast," said Connie Koefka, CC nurse and member of the Code Blue team. "If you find someone in the hospital who is not responding, you could use it and potentially save their life."

The CC boasts 95 AEDs primarily in the elevator lobbies of the Hatfield Building and sporadically around the Magnuson Building. If someone is having a cardiac incident, call the Code Blue team at 111 and follow instructions that accompany the AED.

Cardiopulmonary resuscitation and AED training is available through the Office of Research Services Division of Occupational Health and Safety. Call 301-496-2960 for more information.

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Maggie McGuire, editor

Clinical Center News
National Institutes of Health
Department of Health and Human Services
Building 10, 10 Center Drive, Room 12C440
Bethesda, MD 20892-1504

Tel: 301-594-5789 Fax: 301-480-2984

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Resident Career Day introduces options in clinical research

The Clinical Center's second annual Resident Research Career Day on Oct. 9 welcomed future clinician-scientists from across the United States and afforded an opportunity to share information about academic careers with a focus on scientific research.

The Office of Clinical Research Training and Medical Education organized the event in conjunction with the National Graduate Student Research Conference and the annual NIH Research Festival.

"We hope residents will take advantage of this unique opportunity to explore advances in biomedical science, network with established investigators and clinical colleagues, and learn more about training and career development resources available through the NIH Intramural Research Program," said Dr. Robert M. Lembo, the CC executive director of graduate medical education.

Dr. Steven Holland, chief of the Laboratory of Clinical Infectious Diseases at the National Institute of Allergy and Infectious Diseases, gave the keynote address: "The Unexpected Intersection of Mycobacteria, Lymphatics, and Leukemia."

Internal medicine resident Dr. Tara Berman from St. Luke's-Roosevelt Hospital Center in New York City said, "I



Medical residents (right to left) Drs. Nkiruka Emeagwali, Sean Kim, and Tara Berman visited the NIH to learn more about their clinical research fellowship options.

thought that by coming here, I would be exposed to this fantastic institution and meet people and hear about how I could incorporate research into my career with the different programs and opportunities that are available to us as residents."

Dr. Sean Kim, an internal medicine resident at Hahnemann University Hospital-Drexel University College of Medicine in Philadelphia, added that he was excited

to come to the NIH and see what was "behind the gates."

Dr. Nkiruka Emeagwali, a combined internal medicine/pediatrics resident from Brown University School of Medicine, added, "I wanted to see how to merge my clinical experience in residency with a potential career in research. I think this is a good place to kind of do both, and do them well."

Chinese researcher visits NIH, expands research horizons

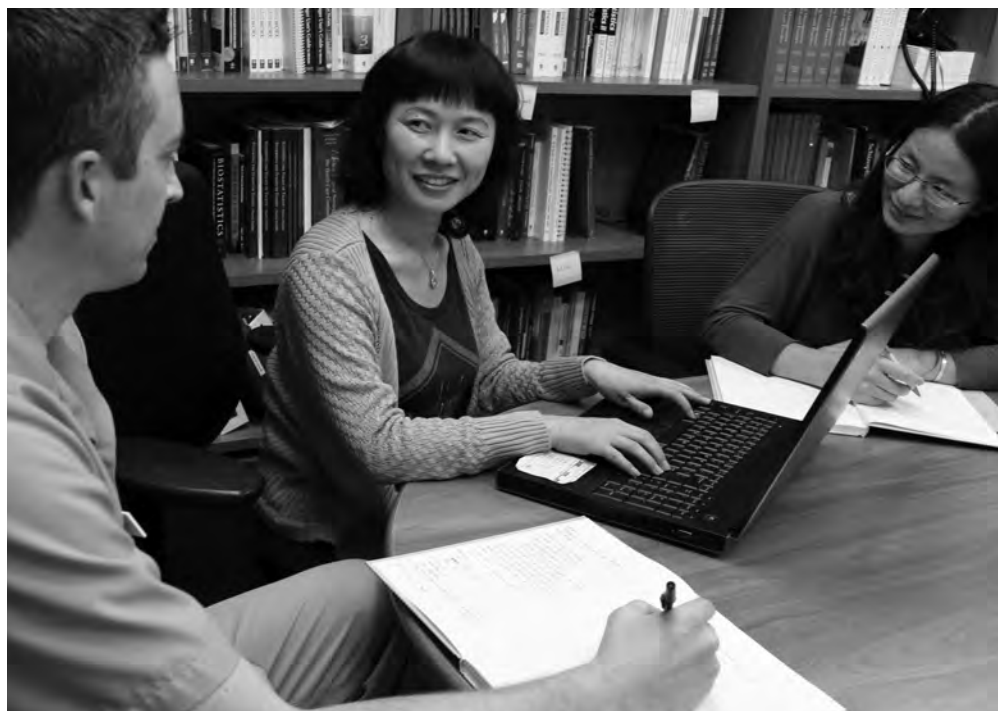
Chinese nurse researcher Chunping Ni is spending six months with Clinical Center Nursing and Patient Care Services, focusing primarily on nursing education, mental health and epidemiological studies exploring post-traumatic stress disorder.

Ni's visit, which is her first to the United States and to the NIH, is part of a formal program through the Fourth Military Medical University in Xi'an, China. She arrived in September and will stay through February.

"During my time here I hope I can learn so many things: innovative research ideas, advanced research methods and the working spirit of NIH," said Ni, who is an associate professor and director of the military medical university's Fundamental Nursing Department.

Ni said that she is looking forward to working with many individuals and expanding some of her research interests by learning more about genetics and genomics.

"Here I can feel the spirit of collaboration and innovation," she added.



Visiting nurse researcher Chunping Ni (center) discusses research data with fellow nurse researchers Li Yang and Mike Krumlauf.

Upcoming Events

Astute Clinician Lecture

November 7, 2012

3:00 pm – 4:00 pm

Masur Auditorium

Dr. Huda Y. Zoghbi will deliver a presentation on "The Value of Clinical Clues in Solving Neurogenetic Riddles." Zoghbi is a professor at Baylor College of Medicine, and serves as an investigator with the Howard Hughes Medical Institute. She is also the director of the Jan and Dan Duncan Neurological Research Institute at Texas Children's Hospital. The Astute Clinician Lecture was established through a gift from Haruko and Dr. Robert W. Miller and is part of the NIH Director's Wednesday Afternoon Lecture series.

Family Caregiver Day Information Fair & Expo

November 13, 2012

10:00 am – 2:00 pm

Hatfield Building seventh floor bridge

In recognition of National Family Caregiver Month, Clinical Center departments and outside exhibitors will offer resources for family caregivers. This event does not require registration. For program details, visit www.cc.nih.gov/wecare/.

CFC Event: Games of Thrones

November 29, 2012

12 pm – 1:30 pm

Masur Auditorium

The Clinical Center will hold an event to increase awareness of the Combined Federal Campaign, which promotes and supports philanthropy that provides all federal employees the opportunity to improve the quality of life for all. Games of Thrones will be a team competition consisting of popular TV game shows.

NCCAM Stephen E. Straus Lecture

December 5, 2012

9:00 am – 10:00 am

Lipsett Amphitheater

This year's annual lecture hosts Dr. David G. I. Kingston, distinguished professor and director of the Virginia Tech Center for Drug Discovery at the Virginia Polytechnic Institute and State University. Kingston's talk "Natural Products: Drugs and Medicines for All Reasons and All Seasons" will review some of the past successes of the natural products approach. The event is open to the public.

Grant from Hyundai supports pediatric cancer research

Pediatric patients and National Cancer Institute (NCI) staff gathered in the Clinical Center on Sept. 19 to celebrate Hyundai Hope on Wheels and its grant to NCI's Pediatric Oncology Branch associate scientist Dr. Rimas Orentas. Jared Hart (at right) joined in the fun, leaving his mark on an art project.

The nonprofit organization is the united effort of Hyundai Motor America and its more than 800 dealers to raise awareness about childhood cancer and to celebrate the lives of the children battling the disease.



Informatics chief honored by award named for his mentor

Dr. James Cimino, chief of the Clinical Center Laboratory for Informatics Development, has been named the recipient of the 2012 American Medical Informatics Association (AMIA) Donald A.B. Lindberg Award for Innovation in Informatics. This award recognizes Cimino's dedication and contribution to the field of biomedical informatics.

The award was named after director of the National Library of Medicine (NLM) and first AMIA president Lindberg, who pioneered the application of computer technology to health care and dramatically altered the extent of informatics' practice and research.

Cimino commented on what this award meant to him. "It is a tremendous honor for me to be given this award by an organization that has been my professional home since it began more than 20 years ago," he said. "I am doubly pleased that the award honors Dr. Lindberg, who has been an important mentor, role model and supporter of my career since my NLM-sponsored postdoctoral fellowship, through many years of involvement with exciting NLM projects while at Columbia University and now with my appointment at the NIH."

The informatics chief joined the CC in January 2008. In his tenure he developed and launched the Biomedical Translational Research Information System (BTRIS), an NIH-wide repository of data collected over the past four decades. BTRIS provides clinical investigators with access to identifiable data for the subjects on their own active protocols, while providing all NIH investigators with access to de-identified data across all protocols. The system allows users to create data sets to support ongoing studies and stimulate ideas for new research with advanced search, filtering and aggregation methods.

Cimino will be honored at the AMIA Leadership Dinner in November.



Dr. James Cimino