May 2004

Clinical Center News

In this issue:

Who We Are, Where We Are Going – A Celebration of Nursing

Nursing legend opens National Nurses Week celebration

Vernice Ferguson, RN, MA, FAAN, FRCN, former chief nurse for the Clinical Center, will return to NIH to be the keynote speaker at the opening ceremony for the Clinical Center's 2004 National Nurses Week celebration. Ferguson's presentation will take place at 10 a.m. in Lipsett Amphitheater on Thursday, May 6.

A Fellow of the American Academy of Nursing, Ferguson was honored by the Academy with the Living Legend designation in 1998. This designation recognizes the most stellar Academy Fellows as reminders of nursing's proud history and as role models for all nurses. She is the recipient of eight honorary doctorates and two fellowships, one in physics and one in alcohol studies. The Institute of Medicine of the National Academy of Sciences has recognized Ferguson's achievements as one of several African Americans who have made significant contributions to the physical sciences, life sciences and social sciences.

For more than twenty years, Ferguson was a nurse executive in the federal service. She served for 12 years as the assistant chief medical director for nursing in the Veterans Administration (VA) and was responsible for more than 60,000 nursing personnel staffing 172 hospitals, 91 nursing homes and 220 outpatient clinics. She also served as the chief nurse at two VA medical centers and as chief of the nursing department at the NIH Clinical Center. She was the first chairperson of the Nurses Organization of Veterans Affairs Foundation, which supports scholarships and research grants for VA nurses. Ferguson was a senior fellow in the School of Nursing at the University of Pennsylvania, holding the Fagin Family Chair in Cultural Diversity from 1993-1996.

Ferguson came to the Clinical Center in 1973 and served as chief of nursing for six-and-a-half years, supervising eight nursing services that included 28 nursing units and five clinics. She led the Clinical Center Nursing Department through several phases of organizational change, including the implementation of the Medical Information System in 1975. During her Clinical Center

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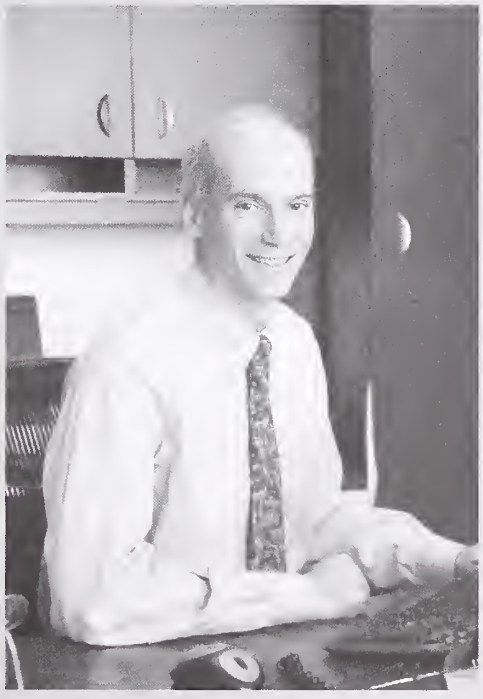
Rosenfeld named chief information officer



Dr. Stephen Rosenfeld has been named Clinical Center chief information officer and associate director for Clinical Research Information Systems. He has been chief of the Department of Clinical Research Informatics since the department was established in 2001. In that capacity he has been responsible for the development of the Clinical Research Information System (CRIS), a system designed to replace the current Medical Information System. CRIS is scheduled to go live on July 31. In this new position, Dr. Rosenfeld will direct the Department of Networks and Applications and the Department of Clinical Research Informatics.

CRIS training set for June and July

Intensive training sessions on CRIS, the NIH Clinical Research Information System, are planned June 14-July 27. All training sessions will be led by instructors and include online tutorials, hands-on practice, discussions, and a post-training assessment.

Fifty training stations will be available in three classrooms within the Department of Clinical Research Informatics, Room 1C290, CRIS training headquarters. Classes will be offered from 7 a.m.-11 p.m. Some weekend classes will be available.

The Classes

Your job determines the types of classes you take. Most nurses, for example will need to complete three classes: Introduction to CRIS, Order Entry for Non-Prescribers, and Clinical Documentation with Medication Charting. Training for prescribers will be consolidated within one class.

Prescriber Training (3 hours): Required for physicians, physician assistants, nurse practitioners, nurse anesthetists, and dentists. This course covers the basics of CRIS, along with how to enter orders, act on orders, sign and verify orders, perform basic documentation, and print reports.

Introduction to CRIS (2 hours): Required for all staff except prescribers. This covers the basics, including orientation to the application screens; how to find patients and patient information; and how to review results, orders and clinical documentation.

Order Eutry for Non-Prescribers (3 hours): Required for affiliate staff, which includes nurses, and ancillary staff who provide clinical care. This class covers how non-prescribers enter, modify, sign, verify, cancel, discontinue, hold, and suspend orders.

Clinical Documentation (2 hours): Required for nursing and other affiliate and ancillary staff who document clinical information in CRIS. This course covers how to enter, modify, and review clinical documentation.

Medication Charting (1 hour): Required for nurses and other staff who administer medications. The course covers how to view and document against medication and IV orders using a computerized medication administration worklist.

Superusers

Clinical Center department-based superusers will be key resources during CRIS implementation and during the first few months of its use. More than 160 superusers have been designated. They'll receive extensive training on CRIS and will have exceptional support from CRIS project staff. Identified by department heads and managers, superusers will act as the on-site first responders for each area's staff. Creating a specially trained cadre of superusers has been a successful strategy during many software application implementations, and CRIS superusers will ease the transition as we implement CRIS. Superuser training is set for early June, with follow-up sessions planned for late July.

How to register

Clinical Center staff, including superusers, will register for training through their managers. Managers will receive a list of staff members with registration requirements and class schedules.

Institute staff: Call the CRIS training hotline at 301-435-5077 to confirm training requirements and register for classes.

For more information about CRIS, visit http://cris.cc.nih.gov.

CRC Milestones

Completion of the new Clinical Research Center is continuing at a steady rate. Clinical Center and Institute staff are preparing for the transition into the new building. Following are dates to keep in mind.

August 25, 2004
Substantial completion of construction

September 2004
Office and laboratory moves begin

December 4, 2004
Patients move into building

Clinical Center News

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News, article ideas, calender events, letters, and photographs are welcome.

Clinical Center News online: www.cc.nih.gov/ccc/ccnews/current/

Room service program aims for patient satisfaction

The room service program designed by the Nutrition Department and implemented in 2002, has garnered much praise and positive feedback from Clinical Center patients and nursing staff.

This month a new and improved system will go into place to serve patients on modified or restricted diets. The current program is available to nearly 65 percent of the patient population on regular diets, while the other 35 percent on restricted diets must adhere to the traditional paper menu system where orders are taken 24 hours in advance and meals delivered at a set time.

"Patients on our current room service program rate our service as 'exceeds' or 'greatly exceeds' their expectation 75 percent of the time versus 59 percent of the time for patients on the traditional menu system," said Dave Folio, chief, Nutrition Department.

The current room service program allows patients on regular diets to call anytime between 6:30 a.m. and 6:30 p.m. to place an order from a restaurant-style menu. The order is placed into the computer system which prints the information onto tickets in the kitchen area. The order is then cooked, checked for accuracy and delivered within 45 minutes. Improvements to the current system include a new computer system that will allow the room service program to be available to most Clinical Center patients, including those on modified or restricted diets.

"The new computer system gives us the ability to look at the nutritional value of various foods," said Folio. "When a patient calls to place an order, foods that are allowed based on a patient's diet order will be differentiated by the computer."

In the upgraded system any food on the menu can be ordered at anytime between 6:30 a.m. and 6:30 p.m. for most diet types. Some of those items include hot and cold cereals, omelets, pancakes, baked filet of sole, London broil with mushroom gravy, and baked salmon with dill sauce. Other specialties include a pasta bar and create-your-own sandwich or pizza.

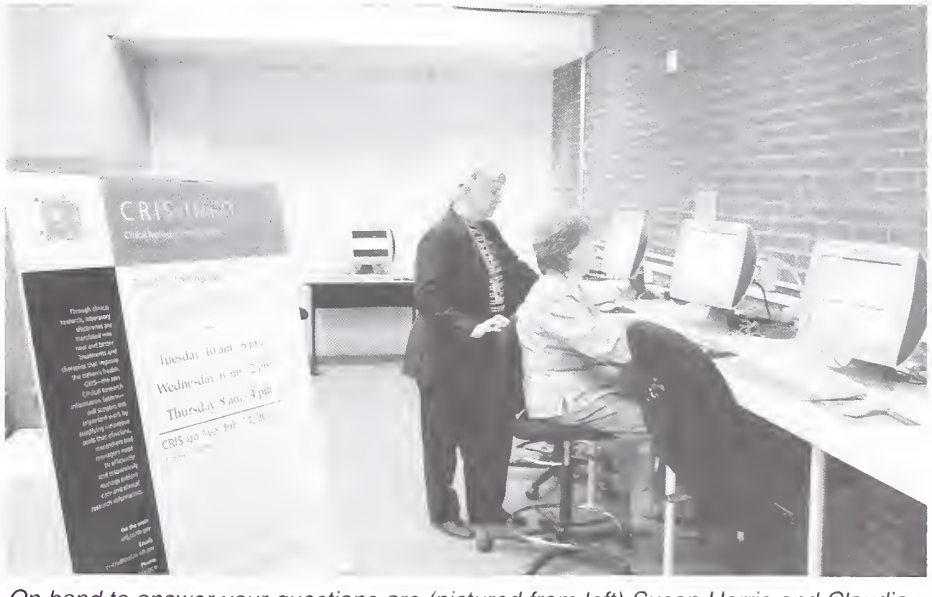
Patients who return to their rooms after 6:30 p.m., can order from the deli menu hours in advance and the meal will be delivered to the unit and left in the refrigerator until the patient returns.

The new system will be implemented by the end of May and will help streamline the operation, reduce waste, improve productivity, and most importantly, increase patient satisfaction. Special menus such as Spanish, kosher, protocol and pediatric menus will also be available.

The nutrition services team is now preparing for the challenge of delivering meals throughout the one-million square feet of the Mark O. Hatfield Clinical Research Center within 45 minutes.

"Transportation is our biggest challenge," said Folio. There are several ideas of how to work the transporting of food including the use of food tuggers, which are small motorized vehicles with hitches attached to food carts that will transport food from the kitchen, located in the lower level of the CRC. The tugger will transport food to the west side of the building where foodservice staff will communicate through wireless communication with the tugger operator to hand off the food.

"Overall, this entire system is focused on the individual patient," said Folio. "With this process and improvements to the room service program, our goal is to improve patient satisfaction."



On hand to answer your questions are (pictured from left) Susan Harris and Claudia Briguglio. Not pictured is Sherry Meyers. All are from the Department of Clinical Research Informatics. Hours of operation: Tuesday, 10 a.m.-6 p.m.; Wednesdays, 6 a.m.-2 p.m.; and Thursdays, 8 a.m.-4 p.m.

CRIS Practice Lab

The CRIS Practice Lab is available to help you get a head start in learning the new CRIS system. Stop in before your scheduled CRIS training in June and July for a general orientation. After training, visit the lab to keep your skills fresh with guided hands-on practice and individualized instruction on the new system. The CRIS lab is located on the first floor of the Clinical Center. Look for the blue curtain near the CRC exhibit across from the admissions desk. For more information about CRIS, including details on training plans, visit http://cris.cc.nih.gov, email cc-cris@mail.cc.nih.gov, or participate in CRIS town meetings. The next town meeting is May 6, 12-1 p.m. in Lipsett Amphitheater. CRIS town meetings are videocast, http://videocast.nih.gov/.

Nurse receives career development award

Margaret Bevans, RN, M.S., AOCN clinical nurse specialist has been awarded the Josh Gottheil Memorial Bone Marrow Transplant Career Development Award, sponsored by the Oncology Nursing Society Foundation.

The award gives $2,000 to four RN's nationwide who have displayed meritorious practice in bone marrow transplant nursing. The award provides financial assistance for the awardees to attend a continuing education program that will further his or her professional goals.

"This is positive reinforcement," said Bevans. "Verifying that people notice what you are doing and that you are doing it well. Sometimes you get a little weary and this award gives me energy to continue efforts to improve the care for patients and families undergoing stem cell transplantation."

Bevans was nominated by her peers and received letters of recommendation from her supervisor, Laura Chisholm, chief, Critical and Acute Patient Services and the chief of the Stem Cell Allotransplantation Program, NHLBI, Dr. John Barrett. She was notified in March that she had won and will be recognized during the ONS 29th Annual Congress to be held in May.

Bevans has been a part of the Bone Marrow Transplant program since it began in 1993. She assisted with the first transplant, providing bedside care to patients and their families. Since then, Bevans said she has been committed to the program. She received her Masters Degree in Nursing at the University of Maryland and is currently pursuing a Ph.D.

Margaret Bevans

Based in Pittsburgh, the Oncology Nursing Society is a professional organization of more than 30,000 registered nurses and other healthcare providers dedicated to excellence in patient care, education, research, and administration in oncology nursing. It is also the largest professional oncology association in the world.

Employee brings joy, chocolate to ailing children

(From l-r) Dara Manzur, Keighlah Fields and Rene Chaclan receive treats from the Easter Bunny at the annual Easter party held for patients and their families in April.
(Inset) Joan Kraft stands behind a giant chocolate bunny that she donated for the party.

For the last seven years, Joan Kraft has made welcoming spring a treat for sick children at the Clinical Center's children's playroom by bringing in large home-baked cakes. That's nothing new—she brings in cakes every month. What is new is the large chocolate bunny that she began adding to the spring festivities last year.

"It all started when I got an NIH-wide e-mail asking for cookies," said Kraft, an administrative laboratory manager in the Cancer Therapeutics Branch, NCI. She responded by asking if she could give cakes instead of cookies and was told that those would be welcome, too. So she began a routine that has gone on ever since.

Two years ago, however, Kraft was making the rounds at an Amish festival and spied a huge chocolate rabbit at a candy stand. She vowed to get one for the next party if it were available.

And that's what she did.

"I was so thrilled to go back and find that one was available," she said. "And I'll keep getting them for as long as they're available."

Kraft also used some connections with Bethesda's Naval Medical Hospital to get a cake to veterans returning from Operation Iraqi Freedom last year. "It's hard to get home baked goods through security," she says, "but I knew who to call and the cake got a Marine escort to the troops. I've never seen anything like it!"

briefs

Blood donors needed

The NIH Blood Bank is in urgent need of type O blood donors. Both local and regional inventories of this blood type are dangerously low. We have patients in the hospital now who need your help. If you are a donor with blood type O, please donate today by visiting the NIH Blood Bank located on the first floor of the Clinical Center. We are open from 7:30 a.m. until 5:30 p.m. Please call for an appointment or directions at 301-496-1048. Convenient, free parking is available for blood donors. learn more about being a donor visit http://www.cc.nih.gov/dtm/html/donrinfo.htm.

Fundraiser supports Patient Emergency Fund

Congratulations to Pam Costner, RN, Sandy MacDonald, RN and Patient Representative Laura Cearnal for winning the Healthy Lifestyle gift baskets. The baskets were won as part of the Nutrition Month activities in April sponsored by the Dietetic Interns of the Clinical Nutrition Service. Each basket contains healthy cooking magazines; a pedometer and exercise guidelines; a coupon for a free French cooking class at *L'Academie De Cuisine* in Bethesda; a free one-month membership to the NIH Fitness Center; a complete nutritional assessment and body composition analysis by the NIH dietetic interns; a one-year subscription to the Nutrition Action Newsletter; and a variety of healthy foods. The NIH dietetic interns of the Clinical Nutrition Service thank the NIH Community for supporting the Nutrition Month activity, which raised $340 dollars for the Patient Emergency Fund.

'Valued employee' will be deeply missed

Jim Reid, 53, a medical technologist and computer information technology specialist for the Department of Transfusion Medicine's Human Leukocyte Antigen laboratory, died of a heart attack on March 22.

Reid came to the Clinical Center in December 1993 as a medical technologist. In 1996, he resigned and relocated to Arkansas, returning in June 1996, where he worked in the Blood Donor Section of Blood Services. A year later he returned to the HLA lab where he worked for the last seven years.

"Jim had that singular combination of intellectual curiosity, technical skill, good humor and genuine likeability," said Dr. Harvey Klein, chief, Department of Transfusion Medicine. "He was a member of this department for more than 10 years and worked in several areas. Virtually everyone knew him. He was someone who always had a good word and a smile for anyone he met. He was truly a friend to all as well as a valued employee. I cannot tell you how much his loss meant to this department. He was a member of the family and no one who knew him will forget him soon."

Jim Reid

"It was a great shock and loss to the department since he was loved by everyone who knew him in the DTM," said Trisha Brooks, program support specialist and assistant to Dr. Klein. "He will be greatly missed."

Reid is survived by his wife, Phyllis Burne-Reid, two children, Zachary and Stephanie and two step-children, Amanda and Christopher.

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tenure she helped initiate the Nursing Department's Annual Program Meeting and Annual Research Review policy. Consultants from within and without the organization were called together to offer expertise in research and clinical practice. She was also responsible for establishing the annual nursing awards program and staff retreats to define goals, long-range plans and modes of implementation for the department.

Join the Nursing Department at the NIH Clinical Center in welcoming Ferguson at the 2004 National Nurses Week celebration kickoff. National Nurses Week begins May 6 and ends May 12. Throughout the week research being conducted by NIH nurses will be highlighted. On Tuesday, May 11, inpatient care units and outpatient clinics will showcase their contribution to clinical research during a special program to be held in the 14th floor auditorium.

There is no better time of year to show nurses how much they are appreciated. There are nearly 2.7 million registered nurses in the United States. NIH Clinical Center nurses are among the best and brightest in the nation and the mission of the Clinical Center could not be carried on without them.

Segway to be evaluated by the Clinical Center

When it was first leaked to the public on the internet publication the Drudge Report, it was simply called "It" — and very little was known about It except that it was supposed to revolutionize the country in much the same way the Internet did. It would be simple and affordable and would gain wide usage.

The trouble was, nobody knew what It was. Veiled in secrecy and hype, It was finally revealed Dec. 3, 2001, on ABC's *Good Morning America*. And though the promoters were correct in that their creation was revolutionary, the revolution itself has yet to occur. But it did catch the attention of Clinical Center Director Dr. John I. Gallin, who asked that the Department of Rehabilitation Medicine evaluate the device, later called the Segway Human Transporter, or an EPMAD (Electronic Personnel Mobility Assistive Device).

"Dr. Gallin saw it as a new technology," said Earllaine Croarkin, a neurological clinical specialist with the Department of Rehabilitation Medicine. "He thought it might be useful for some applications within the Clinical Center."

One of the uses that may be investigated is whether the Segway would be viable for transporting medical staff between the Clinical Center and the new Clinical Research Center (CRC). "We're also looking at whether it can be used effectively between buildings," she added. "A 10-to 20-minute walk from the Clinical Center to the Natcher Building becomes a five-minute ride using a Segway."

Besides the Clinical Center, various institutes may find uses for the Segway for transportation to and from the Clinical Center.

Croarkin, who has worked extensively with the Clinical Center's Segway, said it's easy to use, but for some people it can be difficult to become proficient in and for others it may not be safe. Instead of pushing buttons to go forward or reverse or to accelerate, the device works by balance. Lean forward and the user moves forward. Lean back and the device goes into reverse. Speed is determined by how far users lean forward. And though the Segway is fairly easy to control, one can have a mishap if they hit an obstacle or turn too quickly. "That's why a helmet and training in its use are required," said Croarkin.

Earllaine Croarkin investigates the Segway to see if it is a viable source for transporting medical staff between the Clinical Center and the Clinical Research Center.

"Not only are we learning how to use the Segway, we are learning Segway etiquette. Will people mind Segways in busy elevators? How safely can they be used in hallways and narrow corridors? How will they interact with the electric transportation carts that share the hallways and how much would they increase the traffic of motorized vehicles in the building? All those we'll be evaluating," she noted. "We'll be asking people in the elevators and in the hallways what they think. The feedback will be useful to determine how or if the Segway will fit into this environment."

Another issue is speed. Will doctors be able to use Segways to get from one part of the Clinical Center or CRC to another in a timelier manner during an emergency? Would it enhance productivity among staffers?

Whether the benefits of Segway use can outweigh the health benefits of walking is another consideration. As the nation battles with obesity, the predisposition to avoid long-distance walking is an issue that should enter the decision to purchase the device. Exercise gained by traveling on foot elicits positive effects on the cardiovascular and musculoskeletal systems, which may be lessened with increased Segway use. Additionally, at an average price of $4,000 many people may opt to walk.

The evaluation of the Segway already is underway. Already hundreds of employees have seen Croarkin zipping down the hallways, testing it outdoors and scooting in and out of elevators. It's not uncommon for people to stare and ask questions, and when she stops, she often is surrounded by curious employees and patients. Some even want to try it but she shakes her head. "It's not as easy to use as it looks."

"We want to evaluate whether people with disabilities, could use them," Croarkin said. Eventually a study will be proposed that can begin to describe who might be most appropriate to use the Segway. For example, could someone with an amputated leg be appropriate for Segway use? Is it indicated for people who have balance concerns or cardiovascular compromise?

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Segway
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One of the Segway's selling points is that it was designed to be durable. The mechanical and electrical systems are solid state, so even the moving parts were designed for longevity. The motors are brushless servomotors, so there are no parts that could wear out. The units also incorporate a modular design making it easy to repair if a part does fail.

Each unit has three different keys riders may choose from depending on riding environment and level of experience. The Beginner Key (maximum speed of 6 mph and slowest turning rate), allows riders to gain confidence. The Sidewalk Key (maximum speed of 8 mph and a medium turning rate), allows riders to adapt well in pedestrian environments. The Open Environment Key (maximum speed of 12.5 mph and the most responsive turning rate), allows riders to comfortably cover open spaces. Riders are responsible for riding their Segway at appropriate speeds and most localities limit their use to sidewalks unless the posted speed is 25 mph or less.

"It's a fascinating science," Croarkin said. "The same group produces a wheelchair capable of climbing steps. Hopefully this year we will have a representative bring a wheelchair from that company to the Clinical Center for a demonstration. We are looking forward to learning more about these innovative devices and all the new applications of the respective technology."

–by John Iler

Guidelines draw on pharmacists' expertise

New medication error prevention guidelines may significantly bolster the safety of drug therapy in the U.S. healthcare system. The new guidelines, *American Society of Health-System Pharmacists (ASHP) Guidelines on Preventing Medication Errors with Antineoplastic Agents (cancer-fighting drugs)*, are now included in the National Guideline Clearinghouse (NGC) and are the first ASHP practice guidelines for preventing medication errors with cancer drugs.

Lead drafters of the guidelines were Clinical Center Pharmacy employees David Kohler, PharmD clinical pharmacy specialist; Barry Goldspiel, PharmD, BCOP, special projects coordinator; and Bob DeChristoforo, M.S., deputy chief. The guidelines went through rigorous peer review and were developed through the ASHP Council on Professional Affairs and approved by the ASHP Board of Directors. Publication of the guidelines in January 2004 was the culmination of more than two years of work for the Clinical Center Pharmacy Department team.

"The ASHP could have gone to any oncology leaders in the world but we have the research and non-research aspects of oncology here at the Clinical Center," said DeChristoforo.

For healthcare providers these guidelines provide direction on how to prevent serious medication errors from these cancer drugs. According to DeChristoforo, "We focused on this class of drugs because of their propensity for causing cell damage, cell death, serious side effects, and a range of toxicities in patients."

The specific guidelines include recommendations to help practitioners and health systems implement safeguards for the use of cancer medications, for strengthening error prevention programs in hospitals and health systems and provide guidance to pharmacists, physicians and nurses on how to best carry out their specific medications-use responsibilities. The guidelines cover

See **Pharmacists**, page eight

studies

Children and Teens

Children and teenagers between the ages of 6-18 with cerebral palsy are needed to participate in research about the disease at NIH. Call 1-800-411-1222 (TTY 1-866-411-1010).

Type 2 Diabetes

National Center for Complementary and Alternative Medicine seeks volunteers, ages 18-64, who are on oral diabetic medications for screening of their vitamin C blood levels. You must not have taken vitamin C supplements for at least one month before screening. Compensation provided for blood level screening. Possible eligibility for further participation will depend on blood level results. Call 1-800-411-1222 (TTY 1-866-411-1010). Refer to study# 99-H-0033.

Healthy girls

Healthy girls between the ages of 4-10 are needed to participate in a growth and development study. No blood draws. Compensation provided. Call 1-800-411-1222 (TTY 1-866-411-1010). Refer to study# 00-CH-0180.

Free software

Clinical Center employees no longer need to purchase expensive antivirus software. It's available without cost. "We don't really like to use the word 'free,'" said Dave Hunter, NIH IT specialist. "We do pay for the right to distribute it to employees so that disks that go home and come back to work are free from infection. So it's for our protection, too."

The software, made by Network Associates, is in fact available to all NIH employees at http://antivirus.nih.gov/software/client_na_vscan.asp. It's available for Windows, Macintosh and UNIX. Simply download it and take it home.

Pharmacists
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procedural, technical and behavioral elements that can reduce an institution's vulnerability to errors, including the use of standardized medication order forms and computerized prescriber-order entry systems.

The NGC is a comprehensive database of evidence-based clinical practice guidelines and related documents produced by the Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services, in partnership with the American Medical Association and the American Association of Health Plans-Health Insurance Association of America. ASHP is the only pharmacy organization to have its guidance documents included in the database.

Kohler, Goldspiel and DeChristoforo agree that their contribution to this serious issue may prevent adverse drug events and ultimately save lives.

The cancer-fighting drug guidelines can be viewed online at the NGC website: www.guideline.gov/summary/summary.aspx?view_id=1&doc_id=4312.

may

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Grand Rounds
12-1 p.m.
Lipsett Amphitheater
50th Anniversary Celebration of Clinical Research
Understanding a Common Deficit in Our Sense of Bitter Taste *
Dennis Drayna, Ph.D., NIDCD
Diagnosis and Treatment of Hereditary Hemochromatosis in the Molecular Era: Paradigm Shifts in Understanding Iron Homeostasis *
Susan Leitman, M.D., CC

Wednesday Afternoon Lecture, 3 p.m.
Masur Auditorium
Imaging the Structure and Function of the Cortical Microcircuit *
Rafael Yuste, M.D., Ph.D., Columbia University

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CRIS Town Meeting
12-1 p.m.
Lipsett Amphitheater

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Grand Rounds
12-1 p.m.
Lipsett Amphitheater
Contemporary Clinical Medicine: Great Teachers
The Natural and Unnatural History of Hepatitis C: Prolific Payoffs from the Perfect Patient *
Harvey Alter, M.D., CC

Wednesday Afternoon Lecture, 3 p.m.
Masur Auditorium
Diversity, Body Size and Diabetes: Genetics Without Genotyping *
Elizabeth Barrett-Connor, M.D., University of California

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Grand Rounds
12-1 p.m.
Lipsett Amphitheater
50th Anniversary Celebration of Clinical Research
Bardet-Biedl Disease: Genetic Implications for Other Rare Disorders and Common Diseases such as Obesity *
Leslie Biesecker, M.D., NHGRI
New Insights into the Intracellular Regulation of Cholesterol Metabolism *
Edward Neufeld, Ph.D., NHLBI

Wednesday Afternoon Lecture, 3 p.m.
Masur Auditorium
Population, Land Use and the Environment *
Barbara Entwisle, Ph.D., University of North Carolina

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31st Mathilde Solowey Award Lecture, 12 p.m.
Lipsett Amphitheater
A Molecular Mechanism for Lithium Action in Development and Behavior
Peter Klein, M.D., Ph.D., University of Pennsylvania

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Stem Cell Interest Group Workshop
8:30 a.m.-4 p.m.
Masur Auditorium
Moving Stem Cells from the Lab to the Clinic: Where Do We Stand and What Needs to be Done?

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Grand Rounds
12-1 p.m.
Lipsett Amphitheater
50th Anniversary Celebration of Clinical Research
Development of Alternative Strategies for Smallpox Vaccination *
Barney Graham, M.D., Ph.D., NIAID
From Bench to Bedside: Treating and Understanding Intraocular Inflammatory Disease *
Robert Nussenblatt, M.D., CC

Wednesday Afternoon Lecture, 3 p.m.
Masur Auditorium
Mechanisms and Therapeutic Applications of Immune Stimulatory Bacterial CpG DNA *
Arthur M. Krieg, M.D., Coley Pharmaceutical Group

* Lectures can be accessed on the NIH videocast at http://videocast.nih.gov