



At the NIH Rare Disease Day, Uplifting Athletes founder and Executive Director, Scott Shirley (left), and Dr. Stephen Groft, director of the Office of Rare Diseases Research, named Nebraska running back Rex Burkhead the 2012 Uplifting Athletes Rare Disease Champion, for inspiring a young fan battling a rare brain cancer.

Event recognizes rare disease research

The National Institutes of Health marked the fifth annual Rare Disease Day on February 29 with a day-long celebration in Masur Auditorium co-sponsored by the Office of Rare Diseases Research, part of the National Center for Advancing Translational Sciences, and the Clinical Center.

The event recognized rare diseases research activities supported by several government agencies and advocacy organizations. NIH Director Dr. Francis S. Collins was one of many attendees and presenters clad in blue jeans, a grassroots effort encouraged by the Global Genes Project to raise awareness for rare genetic disorders.

Collins welcomed attendees, emphasizing the collective influence of rare diseases and the importance of eliminating barriers and bottlenecks to therapeutic development. "In particular I think this need is felt for rare diseases, where oftentimes the commercial motivation is insufficient for the private sector alone to take on the challenge," he said. "The NIH aims to, through its various enterprises, plunge in and look at those 4,000 diseases for which

we have now a molecular understanding but we don't have a therapeutic intervention, and figure out how to get started," he said.

Collins also announced the launch of a new resource called the Genetic Testing Registry, a website that will provide a central location for voluntary submission of genetic test information by providers and promote accessible, standardized access to information about genetic tests. The registry is ncbi.nlm.nih.gov/gtr/.

Rare Disease Day was designed to bring together a variety of stakeholders, including researchers and patients. "With rare disease we find that you need multiple partners to have a successful approach to the development of successful interventions," said Dr. Stephen Groft, director of the Office of Rare Diseases Research. "Our approach includes participation by the research community, the patients and patient advocacy groups, NIH researchers, regulatory scientists, and pharmaceutical industry."

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CC researchers discover new cell tracking method

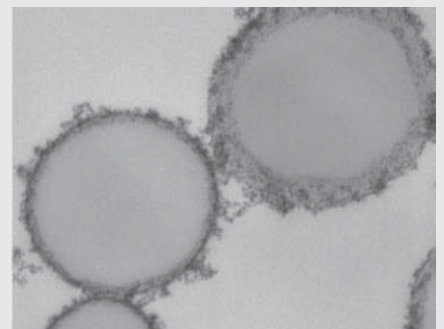
Researchers have developed a method to label transplanted cells so they can be tracked by magnetic resonance imaging (MRI). In the future, as cell therapies become a more integral part of regenerative medicine and tumor treatment, there could be increased need to measure how many transplanted immune or stem cells reach their target.

A team led by Dr. Joseph A. Frank, chief of the Clinical Center Radiology and Imaging Sciences Laboratory of Diagnostic Radiology Research, combined three US Food and Drug Administration-approved drugs to form a complex. That complex, when incubated in transplant cells, labeled nearly 100 percent of those cells for MRI imaging in animal models. The study is published online in *Nature Medicine*.

"Less than 3 percent of intravenous transplanted cells get to their target. This brings up questions of cell dose, multiple doses, and dose timing and how to make cell therapy approaches more effective," Frank said.

Cell death and distribution to other areas prevent most treatment cells from reaching the intended site. By using MRI to track cell arrival or homing to the desired site, researchers can compare dosage amounts and frequency for the

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A complex of ferumoxytol, heparin, and protamine forms through electrostatic interaction and is used to incubate transplant cells for tracking with MRI.

CC patient finds hope through hypoparathyroidism study

Daralin Severino wasn't getting enough calcium, and it was not something that drinking milk or taking vitamins could fix.

Prior to entering a clinical study at the Clinical Center lead by Dr. Karen Winer, a researcher in the National Institute of Child Health and Human Development's endocrinology, nutrition, and growth branch, Severino's kidneys and her life were threatened by low calcium levels resulting from post-surgical hypoparathyroidism.

Winer's innovative trial compared using an insulin pump to deliver a synthetic human parathyroid hormone continuously throughout the day versus twice-daily injections of the hormone. The results of the trial, published in the *Journal of Clinical Endocrinology and Metabolism* in February of 2012, noted that pump delivery of the synthetic hormone provided the "closest approach to date to physiological replacement therapy for hypoparathyroidism."

Today, the only approved treatment of hypoparathyroidism involves varying levels of calcium carbonate and vitamin D supplements, which according to Winer damage the kidneys and are a poor alternative to replacement therapy. "Research on the use of replacement synthetic parathyroid hormone given by injection or the insulin pump, will hopefully provide an alternative to conventional therapy in the future," she said.

As was the case with Severino, the most common cause of hypoparathyroidism is injury to the parathyroid glands, such as during head and neck surgery. Parathyroid glands are small endocrine glands that regulate the amount of calcium and phosphorus in the body's bones and blood. Imbalanced levels of calcium and phosphorus can lead to problems with bones, muscles, skin, and nerve endings. Before enrolling in the study at the CC, Severino's calcium levels were so low that she would experience severe muscle spasms and contractions unless she took calcium



After struggling with complications associated with hypoparathyroidism for more than six years, Clinical Center patient Daralin Severino (left) found hope in a trial conducted by Dr. Karen Winer (right).

supplements every two to three hours.

"Her muscles were so weak that normal everyday tasks such as grocery shopping would leave her extremely fatigued," said Winer.

The PTH therapy, especially when delivered by pump, improved her quality of life by providing more strength and stamina throughout the day. "Having the PTH 1-34 hormone delivered continuously by pump rather than two or three times a day by injection sounded as close to having a new parathyroid gland as I could get," said Severino. She learned of Winer's study through ClinicalTrials.gov in 2006 and has been managing her hypoparathyroidism with the help of Winer and her doctors at home in Hawaii.

"I believe that the more we learn about rare diseases through studies like these, the more we can learn about other ways to help even more people," Severino said.

"For example, now we know the insulin pump can work with parathyroid hormone and not just insulin."

Winer echoes Severino's statement, and says that her patients experience demonstrates how the CC can fulfill an unmet need to effectively treat rare and often ignored diseases.

Before being diagnosed with hypoparathyroidism, Severino was a registered nurse on an acute care floor and enjoyed diving, camping, and playing with her two sons.

Now she must keep her activity level low to maintain her calcium levels but says she is happy even to be able to walk her dog around the block, which she could not do before Winer's treatment. "Not only did it stop the downward spiral of my kidney function, it actually helped my kidneys get better," she said.

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Rare Disease day highlights new diseases, technologies, research

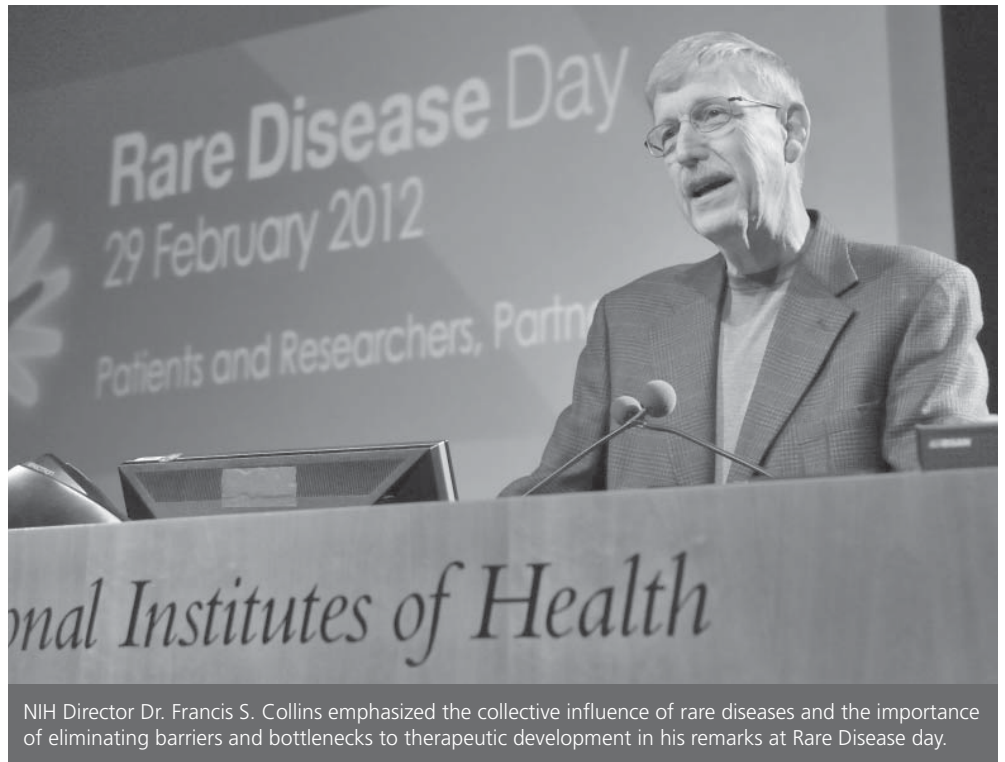
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Dr. John I. Gallin, CC director, welcomed attendees to the afternoon session and presented an overview of the CC. Dr. Ira Pastin, a NIH distinguished investigator and co-chief of the NCI laboratory of molecular biology presented, "Recombinant Immunotoxins for the Treatment of B cell Malignancies and Mesothelioma." The audience also heard from Dr. Hal Dietz, Howard Hughes Medical Institute director and Victor A. McKusick professor of genetics and medicine at Johns Hopkins University School of Medicine. Dietz presented, "Marfan Syndrome and Related Disorders: From Molecules to Medicines."

Dr. Cynthia Tift, deputy clinical director of the National Human Genome Research Institute, presented an update on the NIH Undiagnosed Diseases Program. She described the program's goals, status, and the "diagnostic odyssey" many of her patient's experience while waiting for a diagnosis.

New technologies noted at the event included discussion of stem cell therapies and next generation sequencing, as well as how researchers are uncovering the molecular basis of rare diseases.

Rare Disease Day was established to raise public awareness about rare



NIH Director Dr. Francis S. Collins emphasized the collective influence of rare diseases and the importance of eliminating barriers and bottlenecks to therapeutic development in his remarks at Rare Disease day.

diseases, the challenges encountered by those affected, and the importance of research to develop diagnostics and treatments.

There are about 7,000 rare diseases identified in the United States affecting an estimated 25 million

Americans. About 80 percent of rare diseases are genetic in origin, and it is estimated that about half of all rare diseases affect children. In addition, what researchers learn by studying rare diseases often adds to the basic understanding of common diseases.

Dr. Christine Grady named NIH Clinical Center bioethics chief

Dr. Christine Grady was recently named chief of the Clinical Center Department of Bioethics.

Grady has served as deputy director of the department since 1996 and served as acting chief since September 2011. Her research focuses on clinical research subject recruitment, incentives, vulnerability, consents, and international research ethics.

"Dr. Grady has had a strong international voice in human subjects protections, and under her leadership, the Department of Bioethics will continue its important, world-class work," said CC Director Dr. John I. Gallin.

Grady is currently a member of President Obama's Commission for the Study of Bioethical Issues and is a senior research fellow at the Kennedy Institute of Ethics. She is a fellow of both the American Academy of Nursing and the Hastings Center.

Grady received a bachelor's degree in nursing and biology from Georgetown

University, a master's degree in community health nursing from Boston College, and a doctoral degree in philosophy and bioethics from Georgetown University. In 1996, she came to the CC from the National Institute of Nursing Research, where she had served as assistant director for clinical science.

Grady has served as a consultant to international bodies such as UNAIDS (1996 and 1998) and the Pan American Health Organization (1999) and spent two years in Brazil with Project Hope.

The CC's bioethics department researches and advises on issues stemming from and affecting the conduct of clinical research at the CC and around the world. Bioethics staff and fellows study the ethics of areas of interest that include genetic research, priority setting in health, research with special populations, and the use of placebos.



Dr. Christine Grady was named chief of the Clinical Center Department of Bioethics in February.

Bone marrow donation coordinator flips the script

For 10 years Jennifer Wilder was on the other side of the phone call. As an unrelated donor search coordinator, she identifies potential donors for patients in need of a bone marrow or peripheral (circulating) blood-derived stem cell transplant.

In February Wilder became a donor herself and underwent a peripheral blood stem cell collection at the Clinical Center.

"I am thrilled," she said of the opportunity to make a first-hand difference in a patient's life.

Patients with certain types of leukemia or immune or genetic disorders need a transplant to help repopulate their bone marrow with healthy blood-forming cells following treatment with high-dose chemotherapy or radiation. Donors who share human leukocyte antigen (HLA) markers with a patient can donate blood-forming stem cells by giving either bone marrow or peripheral blood stem cells. Marrow donation requires a minor surgical procedure, whereas blood stem cells are donated by apheresis with use of an automated blood cell separator device, similar to a platelet donation.

If a patient has a sibling who shares all of his or her HLA genes, the sibling's donation is preferred. Since children receive half their genes from their mother and half from their father, siblings often do not share enough HLA markers to serve as a compatible donor. About 70 percent of patients in need of a marrow transplant must turn to an unrelated donor with a closely matched or identical HLA type.

The National Marrow Donor Program maintains a database of several million interested marrow donors and their HLA types. Coordinators like Wilder compare a patient's HLA type to those of potential donors and pursue any possible matches.

Wilder became a contractor with the NIH Unrelated Donor Hematopoietic Stem Cell Transplant Program in 2006. Before that she coordinated unrelated donor marrow and peripheral blood stem cell collections at Georgetown University Hospital, and coordinated transplants at the University of California, San Diego Health System.

She joined the national registry six years ago and was amazed at how easy the process was.

"All you have to do is swab your cheek with a Q-tip and fill out a form with demographic and health history information," Wilder said. "And why not? It's something simple you can do, and you have the potential to save someone's life."

After six years of silence, Wilder got a call informing her that she was a potential match for an unidentified patient. She underwent more testing and was ultimately chosen as the optimal donor. In February she spent a day in the CC Department of Transfusion Medicine undergoing



After 10 years of coordinating donations from others, Jennifer Wilder (left) became a stem cell donor for the first time in February with the help of nurse Tamsen Sweigart.

apheresis. In a peripheral blood stem cell donation, blood is pumped from one arm and the stem cells are isolated by a spinning process and separated out (at no consequence to the donor), and the blood is pumped back into the other arm. In good spirits, Wilder welcomed visitors from the transplant and donation teams she works with at NIH.

"You offer a lot of hope to people who are in a really tight place," Wilder said of donation. "It just made sense to me, especially when you work here. What is our job but to help people every day?"

To learn more about marrow donation and how you can join the donor registry, visit clinicalcenter.nih.gov/blood-donor/donationtypes/marrow.html.

Researchers discover new method to label cells for MRI tracking

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most beneficial treatment.

In clinical practice, cell tracking is done with introduction of a radioisotope or implantation of an easily located reporter gene, but short half-life of isotopes, modification to the cell genome, and possibility of other toxicity limit these methods.

Frank and his team explored the use of ferumoxytol, a drug with iron oxide and magnetic properties that allow for MRI tracking. Two other drugs—heparin (with a strong negative charge) and protamine (with a strong positive charge)—allow for successful and smooth incorpo-

ration into the transplant cell. Ferumoxytol, heparin, and protamine form a complex through electrostatic interaction that, when incubated to transplant cells, label them for MRI tracking.

The complex contains concentrations of each drug substantially below recommended clinical doses and biodegrades safely through the iron metabolic pathway. Since these three drugs are used clinically, extensive safety testing should not be necessary and investigative new drug application evaluation should be shortened.

"The discovery of a technique to track cells developed for potential clinical use is one of many examples of the cutting-edge research at the NIH Clinical Center, which

works to rapidly translate scientific discovery to clinical practice," said CC Director Dr. John I. Gallin.

The technology, pending regulatory agency review, will be tested first in humans in an ongoing trial at the City of Hope Medical Center in Duarte, Calif. Supported by the California Institute of Regenerative Medicine, the study is testing the transplant of genetically engineered neural stem cells on patients with a type of brain tumor.

Researchers from the Henry Ford Hospital, Detroit, and the National Institute of Biomedical Imaging and Bioengineering, part of the NIH, also contributed to the *Nature Medicine* article.

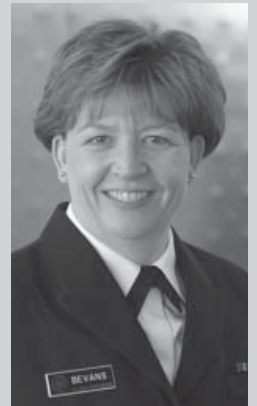


CC leader receives HHS award

Clinical Center Chief Operating Officer Maureen Gormley (right) received the US Department of Health and Human Services Secretary's Award for Distinguished Service. She is pictured above with HHS Secretary Kathleen Sebelius at the February 21 ceremony. The award, given annually, is the highest award granted by the department and recognizes an HHS employee for sustained excellence. The award's citation notes Gormley's outstanding contributions to the CC resulting in high quality services for patients and investigators.

Bevans recognized by oncology society

Dr. Margaret Bevans, Clinical Center Nursing and Patient Care Services clinical nurse scientist, received the 2012 Oncology Nursing Society Excellence in Blood and Marrow Transplantation Award in February.



The award recognizes Bevans' contribution to professional and patient education, clinical practice, and research related to blood and marrow transplantation.

Learn more about Bevans' research on caregivers of bone marrow transplant patients in the article below.

Stress on caregivers can affect emotional, physical health

An article published in *The Journal of the American Medical Association* in January by Dr. Margaret Bevans, Clinical Center Nursing and Patient Care Services researcher, and Dr. Esther Sternberg, chief of the section on neuroendocrine immunology and behavior at the National Institute of Mental Health, addresses burden, stress, and health affect among family caregivers of patients undergoing complex cancer treatments.

"Feelings of guilt, fear, anger, and sadness are very common. Caregivers often use the word 'worry.' They are worried or uncertain about things to come, and that can create additional emotional responses," Bevans said.

Bevans surveyed caregivers of adult cancer patients undergoing an allogeneic hematopoietic stem cell transplant. The complex treatment is prone to complications that can lead to long hospital stays or frequent admissions. In addition to depression and anxiety related to their loved one's condition, caregivers report stress from changing their lives to care for another. "Caregivers prioritize the needs of their loved one over their own. They don't have time to eat healthy food or go to the gym or the doctor, for example," Bevans said.

“ If you give them the opportunity to share, they will. And then you can decide if and when it is the right time for an intervention. ”

-Dr. Margaret Bevans,
Clinical Center NPCS

"You are not going to be able to take care of your loved one if you aren't in good health," said Sternberg, who studies the association between stress responsive neural systems and immune disease. She explained that chronically activating the stress response without giving the body time to recover can be the case with caregivers, and it can seriously affect the immune system.

"We all experience stress, and it is necessary for survival by giving you the attention to fight or flee," said Sternberg. "But if it goes on too long, it can have dangerous consequences."

To offset or avoid such negative effects, Bevans emphasized the importance of assessing the degree to which a caregiver's life and health may be compromised. The research team could involve a caregiver in the patient's medical assessment or use a brief screening questionnaire to monitor the caregiver's status. "If you give them the opportunity to share, they will. And then you can decide if and when it is the right time for an intervention," she said.

Caregivers experiencing chronic stress should not feel guilty for developing coping strategies, the researchers said. "If you can give your body a break, even for a few minutes a day, through social or professional support, regular exercise, or a healthy diet, you will reduce the negative effects of stress," said Sternberg.

Information and education are often very powerful in supporting family caregivers at CC. "Our goal is to help relieve that suffering and find a way for them to be in a better place emotionally and physically," said Bevans.

Learn more about resources for family caregivers at clinicalcenter.nih.gov/wecare.

Tool helps recreation therapists 'Kinect' with patient goals

Clinical Center patient Lewis Reynolds loves bowling, but being in wheelchair with limited functional mobility made the actual game difficult.

Recreation therapist Robin Greenfield caught Reynolds playing bowling games on his phone and introduced the idea of bowling on the motion sensing gaming system Xbox Kinect, a tool recreation therapists use to address a variety of individualized patient goals. The section uses the Kinect, and other gaming systems like it, to address physical, cognitive and psychosocial skills with individuals as well as small groups.

Bowling on the Kinect at his sessions with Greenfield not only gave him the chance to play a game that he truly enjoys, but also gave Reynolds the opportunity to work on dynamic standing balance and the ability to shift weight and improve mobility. "This Kinect is not easy, but it sure is fun," said Reynolds with a big smile on his face after bowling his first virtual strike of the day.

Greenfield says that Reynolds has demonstrated increased strength and improved balance during his treatment sessions. After several months, he has increased his ability to stand from just a few minutes to 20 minutes while engaging in the Kinect activity with a thera-



Recreation therapist Robin Greenfield (left) spots CC patient Lewis Reynolds as he works on balance and strength while playing a bowling game on the motion sensing gaming system Xbox Kinect.

pist's hands-on assistance.

The CC Rehabilitation Medicine Department recreation therapy section is committed to restoring function and improving the quality of life for patients and families through strategic and targeted interven-

tions and activities. The section celebrated the staff's commitment and contribution to the overall health and wellness of the CC's patient community in February when they observed national therapeutic recreation month.

Clinical Center news briefs

Share your story with CCNews

Behind the cutting-edge research and biomedical breakthroughs of the Clinical Center are the people who spend their days or nights furthering the NIH mission. The CC is full of well-rounded individuals, and we would like to feature stories of the off-campus activities that enrich our staff in *CCNews*.

Are you active in a community group that made a valuable contribution or do you have a hobby or passion you love to talk about? Have you organized a community service event or do you have an accomplishment you want to show off? Let your coworkers and your community get to know you and perhaps inspire them with your involvements and accomplishments.

To learn more about sharing your story with *CCNews*, contact Nicole Martino at martinon@cc.nih.gov.

Green team asks 'report a drip'

Even though 70 percent of the earth's surface is water, only 1 percent is available for human use. The NIH's facilities, including the Clinical Center, are significant users of water resources, discharging 708.3 million gallons of wastewater into the sewer system each day.

Because water is such a precious resource, it is important to conserve it whenever possible. According to the Environmental Protection Agency, leaky faucets that drip at the rate of one drip per second can waste more than 3,000 gallons of water each year.

You can help the CC conserve water by reporting dripping or leaky faucets in your area. Report a drip by entering a routine maintenance service request at orf.od.nih.gov or 301-435-8000.

To learn more about greening at the CC visit clinicalcenter.nih.gov/greenteam or email greenteam@cc.nih.gov.

CC hosts pharmacology meeting

The Clinical Center will host the Association of Clinical Pharmacology Units 21st Annual Meeting on April 25-27 at Natcher Conference Center.

This year's meeting will feature a dinner address by John F. Crowley, chairman and CEO of Amicus Therapeutics and the father who inspired the movie "Extraordinary Measures," which starred Harrison Ford searching for a cure for his children's genetic disorder.

Other program highlights include a panel on the future of clinical pharmacology units and early phase clinical research, a virtual tour of the CC's Pharmaceutical Development Section facility, and a presentation on the NIH Initiative on Drug Rescue & Repurposing. To learn more and to register, visit acpu.net/.

NEW CLINICAL RESEARCH PROTOCOLS

The following new clinical research protocols were approved in January:

- Structural and Functional Brain Imaging Markers of Upper Motor Neuron Function; 12-N-0060; Dr. Mary Kay Floeter; NINDS
- Experienced Breacher Study: Evaluation of the Effects from Chronic Exposure to Low-Level Blast; 12-N-0065; Dr. Eric M. Wassermann; NINDS
- Integrative Genomic Analysis In Phantom Limb Pain; 12-NR-0054; Dr. Hyungsuk Kim; NINR
- Entecavir and Peginterferon Therapy in HBeAg-Positive Immune-Tolerant Adults with Chronic Hepatitis B; 12-DK-0071; Dr. Marc G. Ghany; NIDDK
- The Role of the Functionally Relevant Single Nucleotide Polymorphisms CYP2J2 -50G>T (CYP2J2 7) and EPHX2 9846A>G (EPHX2 K55R) in Human Endothelial Function; 12-E-0061; Dr. Darryl C. Zeldin; NIEHS
- Brain-Derived Neurotrophic Factor in Obesity and Neurocognitive Function; 12-CH-0051; Dr. Joan C. Han; NICHD
- Peripheral Blood Stem Cell Allograft Transplantation for Hematological Malignancies Using Ex Vivo CD3, CD19 Depletion and CD34 Selection; 12-H-0028; Dr. Minocher M. Battiwalla; NHLBI
- A Phase I Study to Investigate Subconjunctival Sirolimus for the Treatment of Active Autoimmune Non-Necrotizing Anterior Scleritis; 12-EI-0057; Dr. Hatice N. Sen; NEI
- Phase I Trial of Oral 5-Fluoro-2-Deoxycytidine with Oral Tetrahydrouridine in Patients with Advanced Solid Tumors; 12-C-0066; Dr. James H. Doroshow; NCI

New NIH fact sheet explains test for diabetes, prediabetes

A new NIH fact sheet explains the A1C test used to diagnose type 2 diabetes and prediabetes, and to monitor blood glucose levels of people with type 1 and type 2 diabetes. The blood test works by measuring the amount of glucose attached to hemoglobin, the protein in red blood cells that carries oxygen. In the body, red blood cells typically live for about three months. This life-span allows the A1C test to reflect the average of a person's blood glucose levels for that time.

"The reason why it's very important to diagnose diabetes is because it is not treated, the people with the disease develop complications that are irreversible once they occur. But the complications can be prevented if the disease is controlled," explained Dr. David Sacks, chair of a group working to standardize lab testing for diabetes and chief of the Clinical Center Department of Laboratory Medicine clinical chemistry service.

Originally, the A1C test had been recommended only for monitoring diabetes. But in 2009, an international committee of experts convened by the American Diabetes Association, the International Diabetes Federation, and the European Association for the Study of Diabetes recommended expanding the use of the test to include diagnosing type 2 diabetes and prediabetes.

"Lab tests and results, particularly the A1C, can be confusing," said Dr. Judith Fradkin, a diabetes specialist at the National Institute of Diabetes and Digestive and Kidney Diseases. "We hope this fact sheet

will help people better understand why the test is important, how to interpret results, and why results may differ from expected."

Experts hope the ease of A1C testing will encourage more people to be checked for prediabetes and type 2 diabetes. The A1C test is more convenient because it does not require fasting. However, the A1C test may be unreliable in some people, so check with your doctor to see if the A1C test is right for you.

"To diagnose diabetes if you use glucose, the most widely used way is to measure a fasting glucose where the person has to have fasted for at least eight hours...If someone comes to the doctor but they haven't fasted, then you can't diagnose diabetes because you don't have a sample," said Sacks. "Because hemoglobin A1C is not affected by short-term glucose in the blood, you can measure it any time of the day and whenever the patient arrives, regardless of the time of their last meal."

About 26 million Americans are living with diabetes. More than 7 million people have diabetes and do not know it. An estimated 79 million adults have prediabetes, which is a blood glucose level that is higher than normal but not high enough to be called diabetes. Treatment options for prediabetes and type 2 diabetes include weight loss, exercise, and medications.

The A1C Test and Diabetes fact sheet is free and available online at diabetes.niddk.nih.gov/dm/pubs/A1CTest.

Plain language tips from CCNews

Communicating clearly is important. In support of NIH's commitment to plain language, CCNews will periodically feature tips to help you communicate with clarity and purpose.

Plain language is not "dumbed-down" language—it is clear and to the point. One way to communicate plainly is to engage your reader. When you engage your reader, you give your reader a reason to spend time on your information. How?

1. Identify your reader. Ask yourself the question: Is this material for scientists, clinicians, patients, students, or the general public? You may have more

than one reader. Make sure your material speaks appropriately to each.

2. Consider what your reader needs to know. Organize your material to answer readers' questions. Make your content flow logically so that readers gain understanding by the end of the material.

3. Use the appropriate reading level for your material. Whatever level suits your reader, remember to keep it free of jargon.

To learn more about the NIH's commitment to plain language, visit nih.gov/clearcommunication/plainlanguage.htm.

Upcoming lectures All lectures will be videocast at videocast.nih.gov.

March 7

Clinical Center Grand Rounds

Lipsett Amphitheater,
12 noon

Allergic Disease and the Environment

Darryl Zeldin, MD
Senior Investigator and
Scientific Director, NIEHS

Genome-wide Association Studies and Environmental Interactions in Pulmonary Function

Stephanie London, MD
Senior Investigator,
Epidemiology Branch and
Laboratory of Respiratory
Biology, NIEHS

March 14

Clinical Center Grand Rounds

Lipsett Amphitheater,
12 noon

Contemporary Clinical Medicine: Great Teachers Musical Reading and Writing: Neurology of Music

John C. Brust, MD
Professor of Clinical
Neurology
Columbia University College
of Physicians and Surgeons

March 21

Clinical Center Grand Rounds

Lipsett Amphitheater,
12 noon

Behçet's Disease: An Enigma Revisited

Cailin Henderson Sibley, MD
Staff Clinician, Translational
Autoinflammatory Disease
Section, NIAMS

Elaine F. Remmers, PhD
Staff Scientist, Inflammatory
Disease Section, Medical
Genetics Branch, NHGRI

March 28

Clinical Center Grand Rounds

Lipsett Amphitheater,
12 noon

Influenza and Bacteria: A Life Threatening Combination

Daniel S. Chertow,
MD, MPH
Staff Clinician, Critical Care
Medicine Department, CC

Matthew J. Memoli, MD
Staff Clinician, Viral
Pathogenesis and Evolution
Section, Laboratory of
Infectious Diseases, NIAID

Flash mob encourages all to 'put a little love in your heart'

The National Heart, Lung, and Blood Institute organized a flash mob dance performance to "Put a Little Love in Your Heart" in the Clinical Center atrium on February 3, National Wear Red Day. The event brought attention to the cause of heart health, the number one killer of Americans, and thanked those who help advance heart disease research and care every day including scientists, nurses, medical schools, research participants, and research facilities.

The celebration was made possible with support from the National Institutes of Health Clinical Center, the Foundation for the NIH, and the National Heart, Lung, and Blood Institute. See the video at clinicalcenter.nih.gov/newsevents/events.html.

