NIH Hosts ‘Celebration of Science’ at Natcher

By Rich McManus

On Sept. 8, NIH hosted a “Celebration of Science,” organized in Washington, D.C., by the Milken Institute and Faster-Cures. The Saturday session at Natcher Conference Center featured frank talk on a difficult budget situation by members of Congress, a series of scientific presentations that paired investigators with appreciative patients, panel discussions hosted by event benefactor Michael Milken, and NIH director Dr. Francis Collins both delivering remarks in Kirschstein Auditorium then hosting live remote video broadcasts from three cutting-edge NIH labs.

The audience included NIH stakeholders from academia, industry and patient advocacy groups from around the U.S. Collins asked them to imagine a near-horiz-

Austin Named NCATS Director

Dr. Christopher P. Austin has been named director of NIH’s newest center, the National Center for Advancing Translational Sciences. NIH director Dr. Francis Collins made the announcement at the inaugural meetings of the NCATS Advisory Council and Cures Acceleration Network (CAN) review board. Austin succeeded NCATS acting director Dr. Thomas Insel on Sept. 23.

Austin had been serving as director of NCATS’ Division of Pre-Clinical Innovation since the NCATS launch in December 2011.

“Dr. Austin’s accomplishments in virtually every stage of the translational science spectrum make him an ideal choice to continue building on NCATS’ momentum and successes,” Collins said. “From his clinical experience to his work in the public and private sectors, he is poised to lead the center in revolutionizing the science of transforming laboratory discoveries into new therapies for patients.”

NCATS has launched innovative research ini-

How Are You?

NIH Safety, Health & Wellness Day Promotes Worker Well-Being

By Stacy Weiner

NIH staff pour endless hours into work that aids the well-being of millions of people across the country. But on Aug. 27, the focus was on health and safety in NIH’s own backyard.

The NIH campus is a lot like a small town, noted Dr. Lawrence Tabak, NIH principal deputy director, at the second annual Safety, Health & Wellness Day. The campus has some 20,000 workers, a police force, power plants and more. NIH has the safety concerns of any small town, Tabak noted, but hazards such as dangerous chemicals and infectious agents can make safety a particular challenge.
Graduate Student Research Conference To Be Held, Oct. 9-10

The National Graduate Student Research Conference will be held at the Natcher Conference Center and Lister Hill Auditorium on Oct. 9-10, in conjunction with the NIH Research Festival.

The conference agenda includes career/professional development workshops, a panel of former NIH trainees discussing their career trajectories and NIH Research Festival poster sessions where participants present their graduate research. For more information visit https://www.training.nih.gov/events/recurring/nih_national_graduate_student_research_festival.

NIH Camera Club Holds Contest

The annual open competition of the NIH Camera Club will take place on Tuesday, Oct. 9 at 7 p.m. at the Five Star Premier Residences, 8100 Connecticut Ave., Chevy Chase.

Categories include monochrome prints, color prints, color slides and digital images. Entry fee is $2 per image and individuals may enter up to 3 images in each category. There will be cash prizes for the winning images. Instructions for submission can be found at www.nihcameraclub.com. For more information, contact Jordan Snyder at josnyder@comcast.net.

The Camera Club meets on the second Tuesday of each month (September-June) at 7 p.m. at the Five Star Premier Residences. A guest speaker shares photographic expertise and images and judges photos on topics such as travel, architecture or experimental photography. Joining the Camera Club is a great way to improve your photography, learn about new equipment and techniques and meet friendly people. The Camera Club is an R&W-sponsored organization.

OITE Hosts Community College Day, Oct. 19

The NIH Office of Intramural Training & Education will host Community College Day on Friday, Oct. 19 from 8 a.m. to 4 p.m. at Natcher Conference Center and Lister Hill Auditorium. The event will provide community college students and faculty an opportunity to visit the campus and learn about careers and training opportunities in biomedical and health care fields. For registration and more information visit www.training.nih.gov.

Camp Fantastic Marks 30th Year

A record 112 youngsters recently attended Camp Fantastic, a summer camp for kids with cancer held each August since 1983, with many NIH patients as participants. Above, campers (from l) Carline Wu, Mackenzie Fortuna, Lindsey Brown, Sophia Dirie and Kelly Hipple strike a dramatic pose at the camp, located near Front Royal, Va. This year’s camp featured highlights from the past three decades including the Great Snipe Hunt, Bonkers Olympics and an appearance by four of the 1983 charter campers, who attended a memorial tree planting. Below, NIH patient Omar Garcia reels in the Big One during the camp’s annual Bruce Bernard Fishing Derby. The National Cancer Institute provides medical support for the camp and the NIH R&W Association assists with administrative and fundraising support.
NIH Scientists Receive 2012 Service to America Medals

Two NIH scientists were among 9 winners of the Samuel J. Heyman Service to America Medals, or “Sammies,” bestowed on public servants who make “high-impact contributions to the health, safety and well-being of Americans.”

Dr. Lynn Mofenson, chief of NICHD’s Pediatric, Adolescent and Maternal AIDS Branch, received the Federal Employee of the Year Award from the Partnership for Public Service.

Dr. Neal Young, chief of NHLBI’s Hematology Branch, received the Sammie in the Science and Environment category.

Mofenson was recognized for playing a crucial role in preventing the AIDS epidemic among U.S. children, helping to design and conduct a pivotal clinical trial that led to an effective means to prevent pregnant women from passing HIV on to their infants and for dedicating her career to conducting additional research on HIV and influencing national HIV policy.

In 1989, when Mofenson came to NICHD, 25 to 35 percent of all infants born to HIV-positive mothers were themselves HIV-positive. A landmark research study published by Mofenson and her colleagues in 1994 showed that use of the anti-HIV drug zidovudine (AZT) reduced the mother-to-child HIV transmission rate to 8.3 percent. Mofenson’s further collaborations led to other successful strategies for blocking mother-to-child transmission. She later chaired a Public Health Service task force that made national recommendations on preventing pediatric AIDS infection and later worked to implement these recommendations. Currently, there are fewer than 100 new HIV cases transmitted from mother to child in the U.S. each year. Today, Mofenson continues to work with colleagues in this country and around the world to reduce mother-to-child HIV transmission.

Young’s work has saved the lives of patients with bone marrow failure diseases, including aplastic anemia. Accomplishments from his laboratory include the successful development of immunosuppressive therapies for patients with aplastic anemia and related syndromes; the description of B19 parvovirus as an agent of human disease and the development of a vaccine that is now in clinical trials; and the elucidation of both the immunology and genetics of acquired aplastic anemia, including the first demonstration of pathogenic mutations in TERT, the gene for the telomerase enzyme.

“It is wonderful to see Neal receive such prestigious recognition for his achievements and his ongoing efforts to improve the lives of people with rare blood and bone marrow diseases,” said NHLBI director Dr. Gary Gibbons. “We are proud of the extraordinary public service that he and others of our staff here at the NHLBI perform every day.”

Combined Federal Campaign Kicks Off, Oct. 4 on Bldg. 1 Lawn

The 2012 NIH Combined Federal Campaign kicks off on Thursday, Oct. 4, 11:30 a.m. to 1:30 p.m., under tents in front of Bldg. 1.

Everyone in the NIH community is invited to attend the event, which will adopt the theme of this year’s national campaign—“Give Hope.”

The kick-off will highlight several charities and feature a number of speakers including NIH director Dr. Francis Collins and Dr. Richard Hodes, director of the National Institute on Aging, which leads the campaign this year for NIH. Dr. Mark Bergel, founder of A Wider Circle, a local organization providing basic necessities, will talk about how employees’ generosity is put to good use. He will be joined by representatives from more than 30 charities, who will be available to share information about their work with communities and individuals in need. The program will be led by Patrick Shirdon, NIA associate director of management.

Lunches will be available for purchase from popular local restaurants, caterers and food trucks including Funnel Fare, Go Fish, Kona Ice, Ledo’s, One 3 Five Cuisine, Thatsalata!, the Slider Barron and Smokey D’s Grilling & Catering.

For more information about the kick-off, the CFC campaign and how to support your favorite charities, visit http://cfc.nih.gov or contact your keyworker. Join in giving hope to the millions of people, animals, wildlife, natural resources and more served by the NIH CFC.

Research Festival Set, Oct. 9-12

The 2012 NIH Research Festival, the showcase for the NIH Intramural Research Program, will be held Oct. 9-12. The theme is “The NIH at 125: Today’s Discoveries, Tomorrow’s Cures.”

The opening plenary session is Tuesday, Oct. 9, from 10 a.m. to 12:15 p.m. in Masur Auditorium, Bldg. 10. It will feature dynamic “TED-style” talks by NHLBI director Dr. Gary Gibbons, Dr. Jennifer Lippincott-Schwartz of NICHD and Dr. Ron Germain of NIAID. This will be followed by an even more dynamic “talk” by the late Joseph Kinyoun. The plenary concludes with a history panel discussion with NCI director Dr. Harold Varmus, Dr. Judy Rapoport of NIMH and Dr. William Paul of NIAID, moderated by the Office of NIH History.

Then the action moves to the Natcher Conference Center for posters and concurrent symposia. Other treats this year include a biovisualization exhibit. In 2012, NIH celebrates its quasquicentennial as we trace our roots to Kinyoun’s 1-room Laboratory of Hygiene established in 1887. See the full schedule at http://researchfestival.nih.gov.
AUSTIN
CONTINUED FROM PAGE 1

innovative efforts to transform basic discoveries into improved patient care.”

A developmental neurogeneticist by training, Austin came to NIH in 2002 from Merck, where his work focused on genome-based discovery of novel targets and drugs. He began his NIH career as senior advisor to the director for translational research at the National Human Genome Research Institute, where he initiated the Knockout Mouse Project and the Molecular Libraries Roadmap Initiative. Other NIH roles have included serving as director of TRND and the NCGC and as scientific director of NIH’s Center for Translational Therapeutics.

Austin earned his medical degree from Harvard Medical School and his undergraduate degree in biology from Princeton University. He completed his clinical training in internal medicine and neurology at Massachusetts General Hospital and a fellowship in genetics at Harvard.

To learn more about NCATS and Austin, as well as the NCATS Advisory Council and CAN review board, visit ncats.nih.gov.

The Office of Rare Diseases Research, NIH’s Chemical Genomics Center (NCGC) and the Therapeutics for Rare and Neglected Diseases (TRND) efforts also are among NCATS programs.

“In its first months, NCATS has made great strides in addressing a multitude of translational science challenges,” Austin said. “I feel privileged to have this opportunity to continue serving the NIH mission by leading NCATS’ innovative efforts to transform basic discoveries into improved patient care.”

The National Institute on Alcohol Abuse and Alcoholism is seeking men and women ages 21-30 with a family member (parent or sibling) with a history of alcohol addiction. The study seeks to identify genes that are related to the response to alcohol in humans (study 11-AA-0180). Volunteers should be healthy and drug-free. Qualified participants will be reimbursed for their participation. The study involves a screening visit and two outpatient visits at the Clinical Center. For more details and to participate, call (301) 435-9397 or email AlcPGstudy@mail.nih.gov.

GSA, JBG Discuss Progress of New NIAID Building

Officials from the General Services Administration and the JBG Companies visited NIAID recently to provide an update on 5601 Fishers Lane, the future home of approximately 2,000 institute employees.

The new 10-story building will enable NIAID to consolidate and move staff from a handful of buildings in the Rockledge area of North Bethesda to a single, state-of-the-art facility near the Twinbrook Metro station in Rockville.

Eric Albrecht, a GSA project executive, discussed construction of the new building, which will meet all government standards for water and energy efficiency, building ventilation and lighting and material reuse and recycling. Rod Lawrence, a partner with JBG, the developer of the building, showed the audience plans for the Twinbrook area, which include renovations of the HHS Parklawn Bldg., new bike paths that connect to Rock Creek Park and an eastward extension of Montrose Parkway toward Veirs Mill Rd.

NIAID will begin moving into 5601 Fishers Lane in early 2014.

Have a Family History of Alcohol Addiction?

The National Institute on Alcohol Abuse and Alcoholism is seeking men and women ages 21-30 with a family member (parent or sibling) with a history of alcohol addiction. The study seeks to identify genes that are related to the response to alcohol in humans (study 11-AA-0180). Volunteers should be healthy and drug-free. Qualified participants will be reimbursed for their participation. The study involves a screening visit and two outpatient visits at the Clinical Center. For more details and to participate, call (301) 435-9397 or email AlcPGstudy@mail.nih.gov.
NIDA Recognizes Addiction Science Award Winners

The 2012 winners of NIDA’s Addiction Science Awards, part of the Intel International Science and Engineering Fair (ISEF), presented their projects to NIDA scientists recently. The Addiction Science Awards are coordinated by NIDA as well as Friends of NIDA, a private group dedicated to furthering NIDA’s mission. ISEF is the world’s largest science competition for high school students. The 2012 awardees are as follows:

First place: John Edward Solder (project: Optogenetic interrogation of prefrontal cortex dopamine D1 receptor-containing neurons as a technique to restore timing: A novel approach to treat prefrontal disorders)

Second place: Benjamin Jake Kornick (project: OMG: Look who joined Facebook! The relationship between parenting and adolescent risk behaviors)

Third place: L. Elisabeth Burton (project: A big fat deal, phase III: Attributions of body talk, risk assessments of steroid/dietary supplement use, perceptions of media images and self-esteem)

Following the awards presentation, the honorees enjoyed a guided tour of the Clinical Center and NIDA intramural laboratories.
“The safety and well-being of our patients, visitors and our greatest resource—our employeess—have to be our top priority,” Tabak said.

So how can leaders at NIH—and workplaces everywhere—support and protect their employees?

The best employers will not only keep employees safe, but also will actively promote their health, argued guest speaker Dr. L. Casey Chosewood of the Centers for Disease Control and Prevention. The goal is that “workers don’t go home at the end of the day with the same level of health as they arrived—they actually go home with more health,” said Chosewood, senior medical officer for Total Worker Health Programs at the National Institute for Occupational Safety and Health.

CDC and NIH employees often face tough circumstances and serious hazards, said Chosewood. They work in places such as African villages, post-hurricane New Orleans and maximum containment labs. Clinical staff, he added, witness illness and death every day. And night work and long hours only intensify the strain.

Still, despite such challenges, Chosewood said, the greatest dangers these workers face are usually the same ones that threaten the well-being of other Americans, including obesity, tobacco abuse, accidents and chronic diseases.

To combat obesity and promote physical activity, Chosewood recommended creating environments that encourage walking. Paths that lead to eateries, ATMs and other popular destinations can motivate movement, he said. At CDC, he noted, employees helped build one path. “Not only did they get some physical activity creating the space,” he said, “[but also] they will use the space because they helped create it.”

What else spurs healthy behaviors? In addition to physical environment, policies and cultures are key to change, said Chosewood. “It’s expensive to go to [you as] individuals to try to change your behavior,” he noted, “but if I create an environment where the default outcome is more health for you and every other person in the space, it’s very economical—and it’s more powerful.”

Of course, change can be hard. Chosewood acknowledged, for example, that it was tough for NIH to go tobacco-free. But, he argued, “for every new person who comes into the [work-
NIEHS Launches 5-Year Strategic Plan

With an Aug. 1 editorial in Environmental Health Perspectives, NIEHS director Dr. Linda Birnbaum officially launched the institute’s 2012-2017 strategic plan.

In the editorial, Birnbaum made a point of emphasizing the collective ownership of the plan and the input of hundreds of stakeholders—from scientists to public health advocates—that shaped its vision and goals. As NIEHS prepares to celebrate its 50th anniversary in 2016, she explained, the institute has evolved to meet the new challenges of the environmental health sciences, building upon the accomplishments of the past.

“The NIEHS has come a long way in making environmental health research responsive to the needs and concerns of the American people—to make environmental health part of the public health debate,” Birnbaum wrote. “This continues to be a source of motivation and purpose for NIEHS staff and our research partners.”

The strategic plan process was officially launched Mar. 1, 2011, in a meeting at NIEHS with deputy director Dr. Rick Woychik and Dr. Sheila Newton, director of the Office of Policy, Planning and Evaluation, discussing online resources for contributing ideas for the plan. These included an interactive web site called Visionary Ideas, where people could post their big-picture ideas about the strategic plan and vote to agree, disagree or comment on ideas posted by others.

Read the NIEHS Strategic Plan at www.niehs.nih.gov/about/strategicplan/strategicplan2012_508.pdf.

NIDCD’s ‘Noisy Planet’ Stars on Jeopardy!

During the recent Kids Week on Jeopardy!, viewers learned more about history, natural disasters, musical instruments and the importance of protecting one’s hearing when the National Institute on Deafness and Other Communication Disorders’ It’s a Noisy Planet—Protect Their Hearing campaign was featured as a special category. The national education campaign teaches parents and tweens (children ages 8-12) about healthy hearing habits to protect them from noise-induced hearing loss, which is cumulative, permanent and preventable.

Jeopardy! producers used information from the public awareness campaign to develop questions related to the causes, symptoms and prevention of noise-induced hearing loss. Contestants appeared hesitant to select the It’s a Noisy Planet category at first, but ultimately answered 4 of the 5 questions correctly during the Double Jeopardy! round.

One of the questions within the category was revealed to be a Daily Double, and the contestant chose to wager a modest $10, which brought chuckles from the audience and host Alex Trebek; his small bid turned out to be a good decision, since he didn’t know the correct question for “Since the 1870s people have been worried about the ‘air’ type of this; since the 1970s, about the ‘noise’ type.” What do you think the correct question is?

If you want to find out, you can watch a clip on NIDCD’s It’s a Noisy Planet web site. You can also post a comment on the Jeopardy! and It’s a Noisy Planet Facebook pages to say which answers stumped you and which ones you got right.

Grady Honored by UCLA School of Nursing

Dr. Patricia Grady, director of the National Institute of Nursing Research, was recently honored by the UCLA School of Nursing with the Sterling Award at the school’s 2012 commencement ceremony, where she served as the keynote speaker. This was the inaugural year for the Sterling Award, which acknowledges “superior achievement in science and health.” UCLA noted that the award recognizes those who have taken great strides in promoting and improving health across the nation through scientific research and leadership in health communities.

In her keynote address, Grady discussed the health care challenges of the 21st century and the capacity of the nursing community to lead change and advance health. Her remarks included examples of how nursing research has been translated into practice. One example, the “SmartSponge System,” is an FDA-approved medical device developed collaboratively by an operating room nurse. After citing several notable contributions nurses and nurse scientists have made, Grady spoke directly to the soon-to-be-graduates: “You have the ability to fundamentally change our health care into more equitable, effective, person-centered, accessible and affordable systems. And you have the remarkable opportunity to bring about sustainable, far-reaching improvements into the lives of people you touch every day and also into the lives of people the world over.”
CELEBRATION
CONTINUED FROM PAGE 1

on of medical advances including steps toward a cure for Alzheimer’s disease, targeted therapy for tumors, a one-time universal influenza vaccine, solutions to the problems of obesity and diabetes and the ability to transform skin cells into liver and kidney cells and other cell lines that could be used to test drug safety.

“We have a proud past,” Collins said, “but a more exciting future...our job is far from over. There are still too many diseases that lack cures, and too much suffering.”

The day’s first panel featured Rep. Eric Cantor (R-Va.), Rep. Steny Hoyer (D-Md.), Collins and Milken, who said, “What has occurred on this campus has had a greater effect on the world than any other campus or company in the world...People need to see the beam of light that is shining throughout the world from this location.”

He said as much as 50 percent of the world’s economic growth in the past 2 centuries could be traced to medical research. “It’s a major source of job creation.”

Cantor pledged to figure out a means of bipartisan cooperation “to take us forward...to maintain our pre-eminence in science...I stand with Steny to say this institution and its pursuit of scientific discovery is a priority for us.” He also divulged that his father suffers from a neurological condition that is currently uncurable: “If I could save my father, I would.”

But Cantor warned that budget sequestration—which would reduce NIH’s budget by some $2.4 billion—is a possibility if Congress and the President can’t agree on a way to resolve the nation’s debt problem by the end of 2012.

Against a backdrop of potentially dire budgetary outcomes were a series of powerful, emotional vignettes including researchers and patients who demonstrated what can happen when medicine rises to the occasion and heals individuals. These included:

- Dawn Averitt Bridge, who while a college sophomore at age 20 was raped and acquired HIV that later progressed to full-blown AIDS. Advances in AIDS therapies, however, resulted not only in her survival, but also the realization of a lifelong dream: she is the mother of two non-HIV-infected children, her “miracle babies.”

- Timothy Ray Brown, the so-called “Berlin patient,” who was diagnosed with HIV in 1995 but later became the first person cured of the infection, due to a bone marrow transplant for leukemia that
included a gene that rendered him AIDS-free. “I am dedicating my life, my blood, my body and my mind to a cure [for HIV],” he said. “And I will not let you down.”

The Beery family of California, whose children Alexis and Noah benefitted dramatically from whole-genome sequencing that correctly identified the cause of a series of long-term and debilitating symptoms. When they walked out—whole and handsome—on the Natcher stage with Dr. Richard Gibbs, a genome scientist from Baylor University who helped the family, the room erupted in a standing ovation.

Collins’ first stop on his campus tour was the Vaccine Research Center laboratory of Dr. Peter Kwong, who described the challenges in structural biology to creating a broadly neutralizing AIDS antibody.

The Natcher audience was treated to two other brief interviews beamed back to the hall by Collins, who visited Dr. Daniel Reich of NINDS in the Magnetic Resonance Imaging Center at the Clinical Center and Dr. Diane Damiano of the CC’s rehabilitation medicine department. She showed off the hospital’s state-of-the-art biomechanics lab with the help of Dancing with the Stars celebrity John O’Hurley, who demonstrated what he called “the Waltz of the NIH.”

The day abounded in powerful moments.

Writer Judy Bachrach describing the wrenching, slow-motion loss of her formerly vibrant and talented mother to Alzheimer’s disease: “She’s no longer my mother,” Bachrach declared, “but I am still her daughter and I will take care of her until the day she dies.”

Rep. Chris Van Hollen (D-Md.), who in a lunch-time address described in detail the budget pain of sequestration. “It will have a real cost to our country and to scientific discovery,” he warned. “I’m hopeful we’ll be able to replace what is clearly a really dumb way to reduce our national deficit.” Sequestration would mean a 7.8 percent cut for FY 2013 from the non-defense discretionary portion of the federal budget (from which NIH is funded). He added that the current House budget is even more damaging than sequestration. According to Van Hollen, over 10 years, the House budget trims an additional 13 percent below the non-defense discretionary funding levels that would result if the full sequester were to take effect.

Sen. Benjamin Cardin (D-Md.), who passionately defended the value of NIH by enumerating such successes as dramatic reductions in mortality from stroke and heart disease, increases in lifespan during the past century and the fact that “cancer is no longer a death sentence...We have found answers for polio and for HIV/AIDS and we can do the same with Alzheimer’s disease,” he said. “I hope we can increase the NIH budget...We can never be satisfied with a freeze or the status quo...We're not going to tolerate a cut.”

Former NIH director Dr. Elias Zerhouni reporting that nations around the world are anxious not only to duplicate NIH, but also to reap its economic bounty. He said that during his 6 years as NIH director, he counted some 4,500 companies in some way dependent on NIH.

High-tech entrepreneur Dr. Jonathan Rothberg, who credits NIH seed money with helping him launch, from 1993 to the present, a series of companies dedicated to high-throughput genome sequencing, summing up NIH’s value: “NIH can invest before an idea is even probable...If you want a bright future, think about doubling the research budget. That’s what people need to know...That’s how we create the wealth of a nation.”

Army Capt. (Ret.) Jonathan Pruden, badly wounded in Iraq in 2003, lost his right leg and endured some 20 operations. But due to successful treatment of “Iraqibacter” (Acinetobacter baumannii) acquired during war, his remaining foot was spared. He strode onstage looking hale and hearty.

“I hope you’ve been inspired and sensed the excitement, optimism and hope that infuses this work,” concluded Collins as the afternoon session wrapped up. “Let’s not waste this moment...We will turn today’s dreams into tomorrow’s cures.”

NIH Researchers Restore Children’s Immune Systems

Researchers have demonstrated that a refined gene therapy approach safely restores the immune systems of some children with severe combined immunodeficiency (SCID). The rare condition blocks the normal development of a newborn’s immune system, leaving the child susceptible to every passing microbe. Children with SCID experience chronic infections, which usually triggers the diagnosis. Their lifespan is 2 years if doctors cannot restore their immunity.

The findings from facilities including NIH, UCLA and Children’s Hospital Los Angeles were reported in the Sept. 11 advance online issue of the journal Blood.

In the 11-year study, the researchers tested a combination of techniques for gene therapy, arriving at one that produced normal levels of immune function for three patients.

“Doctors who treat patients with SCID have had limited treatment options for too long,” said Dr. Dan Kastner, scientific director of the National Human Genome Research Institute. “The research teams and the patients who have participated in the studies have together achieved an impressive advance toward a cure that is welcome news for both the scientific and patient communities.”

Gene therapy is an experimental method for treating patients with genetic diseases. It is intended to integrate functioning genes among those naturally existing in the cells of the body to make up for faulty genes. Researchers in the current study tested a set of methods to improve outcomes for children with a particular form of SCID.

While rare, SCID became widely known because of the remarkable boy-in-the-bubble story of the 1970s.

Potential Therapeutic Targets Found for Lung Squamous Cell Carcinoma

Researchers have identified potential therapeutic targets in lung squamous cell carcinoma, the second most common form of lung cancer. The Cancer Genome Atlas (TCGA) Research Network study that appeared online Sept. 9 and in print Sept. 27 in the journal Nature comprehensively characterized the lung squamous cell carcinoma genome. The study found a large number and variety of DNA alterations, many of which seem to be driving forces behind pathways that are important to the initiation and progression of lung cancer.

"With these findings, TCGA researchers have set the stage for the development, testing and implementation of advanced diagnostics and therapeutics for lung squamous cell carcinoma," said NIH director Dr. Francis Collins.

Researchers have made important strides in understanding and developing precision medicine treatments for adenocarcinomas, which are the most common type of lung cancer. But these treatments have been largely ineffective in treating lung squamous cell carcinoma. This carcinoma frequently develops in the large airways in the center of the lungs, while adenocarcinomas often arise at the edges of the lungs. Lung adenocarcinomas sometimes affect non-smokers, while lung squamous cell carcinomas arise almost exclusively in smokers.

"This report provides an unprecedented view of the spectrum and high rate of genomic mutations that are found in lung squamous cell carcinoma," said NHGRI director Dr. Eric Green. "We hope this report will spur basic research to better understand the genesis of the disease, and in clinical research as these new findings are factored into potential treatment approaches."

Study Shows Feasibility of MRI to Guide Heart Catheter Procedures

Heart catheter procedures guided by magnetic resonance imaging (MRI) are as safe as X-ray-guided procedures and take no more time, according to a pilot study conducted at NIH. The results of the study indicate that real-time MRI-guided catheterization could be a radiation-free alternative to certain X-ray-guided procedures.

A report of the study, which was conducted by researchers at NHLBI, was published online in the European Heart Journal.

"This could be the first chapter of a big story," said Dr. Robert Balaban, NHLBI scientific director. "It provides evidence that clinical heart catheter procedures are possible without using radiation, which could be especially valuable in areas such as pediatrics."
Tougaloo College Students Visit NIH

Health and Medicine, provided a hands-on demonstration with specimens from the world’s largest brain collection.

The day ended with an athletic activity. The students attempted to play a carnival game while wearing specially designed goggles that simulate the impairment caused by drinking.

Derek Jeter summed up the value of the site visits in a press release. He wrote, “It is extremely important that our Jeter’s Leaders are properly educated about the negative impact of alcohol abuse and alcoholism.” He added that his foundation’s collaboration with NIAAA offered the teens “the opportunity to learn about the effects of alcohol and strategies to educate their peers and younger students.”

In the front row are (from l) Dr. Helena Mishoe, director of NHLBI’s Office of Research Training and Minority Health; Dr. Chitra Krishnamurti, deputy director, ORTMH; Jackson Heart Study’s Mary Crump; Mohamed Mohamed, NHLBI intern; Dr. Susan Shurin, deputy director, NHLBI (formerly acting director, NHLBI); Melvin Smith, NHGRI intern; Cheryl Nelson, health statistician, NHLBI; and Tougaloo College’s Dr. Nimr Fahmy. In middle row are (from l) Najhnan Billingsley; Chance Gray, NIH intern; Ashley Kinf, Erica Brown, Cari Hampton, Diva Whalen, Denzel Hardy and Dr. Nara Gavini, ORTMH. At rear are (from l) Charles Phillips, Rochelle Corbit, Kisa Harris, Orianna O’Dell, Bri Lewis and Jolynathan Grayson.
Students from Diverse Backgrounds Learn About NIDDK Research
By Krysten Carrera

On the surface, Camille Miller and Yvonne Johnny appear to have little in common. Miller is an American Indian, lives in the dusty deserts of Arizona and is enrolled in college to be a registered nurse. Johnny hails from the tropical paradise of the Federated States of Micronesia (FSM), a U.S.-affiliated territory, more than 5,000 miles away. She hopes to pursue science education when she graduates from high school. But both young women share one important similarity: each of their communities suffers from unusually high rates of diabetes and its complications. And each student spent the past few months looking for a way to change that.

This summer, both participated in NIDDK programs designed to diversify the research field. Miller studied type 2 diabetes through the NIDDK Summer Internship Program (SIP) at the institute’s Phoenix Epidemiology and Clinical Research Branch (PECRB). Johnny researched type 2 diabetes through the Short-Term Education Program for Underrepresented Persons (STEP-UP) in her native Micronesia. Both presented their work at conferences at NIH in August.

The two programs are designed to provide research opportunities for students from groups underrepresented in biomedical research, including certain racial and ethnic minorities. SIP students conduct research related to NIDDK’s mission at a lab on the main campus or at PECRB; STEP-UP students work at one of several NIDDK-funded labs in the United States and its territories. This year, STEP-UP welcomed students from the Marshall Islands, the FSM and U.S. Virgin Islands for the first time and NIDDK established a new molecular biology lab in the Marshall Islands.

Dr. Lawrence Agodoa directs NIDDK’s Office of Minority Health Research Coordination, which manages both programs. He said having a diverse pool of researchers to tackle some of science’s most pressing issues is crucial.

“People of all walks of life need to come together and think about how to solve these problems,” he said. “Many chronic diseases such as diabetes affect minority communities disproportionately. Having friends and family who are affected by a disease often gives people extra motivation to pursue biomedical research.”

Miller and Johnny concur. Part of Miller’s passion for her research on type 2 diabetes in Pima Indians comes from having experienced the disease within her own American Indian community, the Cocopah tribe, and even closer to home.

“Diabetes runs in my family, and my grandparents were amputees from diabetes complications. They ended up dying from diabetes. I really think that my family and tribal members could benefit from my research,” she said.

Miller’s research this summer at PECRB was her first foray into the world of medicine and she hopes to apply for an NIH grant one day to resume her investigations.

Johnny also hopes to continue her research.

“I want to find a cure for diabetes to help my family and friends back home,” she said. “I see myself as the future of diabetes research.”

Learn more about the NIDDK Office of Minority Health Research Coordination summer programs at www2.niddk.nih.gov/OMHRC/OMHRCHome/OMHRCHome.htm.
NIH Holds Hiring Event for Vets, People with Disabilities

NIH recently held its 3rd annual hiring event for veterans and persons with disabilities. Organized by the Office of Human Resources, the event brought dozens of NIH managers and nearly 100 pre-screened candidates who participated in 155 interviews during the day-long session.

Valerie Gill, director of OHR’s Client Services Division, said, “I am so impressed and thankful for the participation and partnership offered by all of the institutes and centers in support of this event. The willingness of our outstanding hiring managers to participate in this unique hiring activity enabled OHR to create employment opportunities for veterans and persons with disabilities who might not have otherwise considered NIH as a viable career choice.”

E.C. Melvin, grants management team lead at NIGMS, added, “I found the event to be extremely organized and efficient. It was great to bring together a pool of qualified applicants and managers to explore employment options.”

OHR conducted outreach efforts within the targeted communities to prepare candidates for the day, including resume workshops and webinars. Applicants were screened to ensure their qualifications and were matched with NIH managers seeking candidates for positions ranging from food service workers to administrative officers.

Nearly 100 volunteers made sure all of the logistical details were taken care of, including making sure candidates felt welcome. Larry Chloupek, management liaison director, Office of Intramural Research, and a hiring manager, said, “This was my third year participating in the NIH hiring event and each year it surpasses my expectations. I again was very pleased with the outstanding quality of candidates.”

Jason Olsen, president of the advocacy group Federal Employees with Disabilities, praised NIH’s efforts: “I think it’s great—it’s very well organized and professionally run. NIH has done a lot of conscious and appropriate planning.” He hopes what he’s learned at the event will help other agencies improve their efforts to recruit persons with disabilities.

NIH Holds Hiring Event for Vets, People with Disabilities

Wani Named CSR Review Group Chief

The Center for Scientific Review has named Dr. Maqsood Wani new chief of its cell biology integrated review group (IRG). He has been a scientific review officer, coordinating NIH grant application reviews for the cardiovascular differentiation and development study section in CSR’s cardiovascular and respiratory sciences IRG.

“Maqsood brings to this key position exceptional breadth and depth in understanding of molecular, cellular and developmental biology,” said CSR acting director Dr. Richard Nakamura. “He also brings a deep appreciation and understanding of peer review.” Nakamura noted that Wani has served as a CSR referral officer, assigning applications to various IRGs.

“His new IRG also will benefit from the valuable skills he developed mentoring and leading scientific review officers at CSR,” Nakamura added.

The cell biology IRG includes nine study sections, which review applications related to the study of fundamental cell and developmental biology, as well as basic mechanisms in aging and ocular systems.

Wani earned his Ph.D. at Ohio State University, where he studied the role of oncogenes and tumor suppressors in the acquisition and loss of amplified genes. He did postdoctoral work at the University of Cincinnati, studying the role of transcription factors in the development of heart, lung and blood using embryonic stem cells and gene knockout technology.

Before joining CSR, Wani was assistant professor in the departments of pediatrics and molecular genetics at the University of Cincinnati Medical Center, where he was engaged in stem cell research in cardiac regeneration as well as in medical and graduate teaching.

The results of his research were published in Nature, Development, Journal of Biological Chemistry, Molecular and Cellular Biology, Transgenic Research, Blood, Cancer Research and Circulation.

CFC Kick-Off Breakfast, Oct. 10

Eurest Dining Services, in partnership with the Office of Research Facilities and the Office of Research Services, invites you to have a big breakfast on Wednesday, Oct. 10 in celebration of the 2012 Combined Federal Campaign kick-off. Between 7 and 9:30 a.m., Eurest will donate 10 percent of total sales to NIH charities. The more you order, the more Eurest donates. So come fill up your plates, get your coffee mugs ready and support CFC. Participating cafeterias and other Eurest Dining Services include: Bldgs. 10 (B1, ACRF and Au Bon Pain in the CRC), 31, 35, 40 (Cyber Café) and 45. For more information, contact Marisa Sheelor at (301) 402-0926.
10th Annual Commissioned Corps Promotion Program Held

The 10th annual NIH Public Health Service Commissioned Corps promotion ceremony was held recently in Masur Auditorium. Family members, coworkers and fellow PHS officers celebrated the promotion of 34 officers.

After the singing of the National Anthem and the PHS March, Chaplain John Pollack of the Clinical Center provided an invocation. RADM Helena Mishoe, director of NHLBI’s Office of Research Training and Minority Health and NIH representative on the Surgeon General’s Policy Advisory Council, presided over the ceremony.

NIH principal deputy director Dr. Lawrence Tabak commended and thanked officers at NIH, especially those being promoted, for their contributions to the agency and its mission. He also pledged NIH support for those assigned here in their Commissioned Corps careers.

Deputy Surgeon General RADM Boris Lushniak addressed the promoted officers and congratulated them for their contributions to PHS as well as the scientific community. Family members and coworkers joined the newly promoted officers on stage for the changing of their shoulder boards to denote their new positions.

Officers promoted are listed below by PHS category:

Medical—promoted to captain: Gregory Deye, NIAID; Paul Jung, NIEHS; Melissa Merideth, NHGRI; Daniel Singer, NICHD;promoted to commander: Daniel Chertow, CC; promoted to lieutenant commander: Ian Myles, NIAID

Nurse—promoted to captain: Irene Dustin, NINDS; Dianne Hilligoss, NIAID; Akua Kwartemaa, NIAID; Susannah Wargo, NIDCD; promoted to commander: Allison Adams-McLean, CC; Karen Axelrod, CC; Megan Mackey, NCI; Megan Mattingly, NIDDK; Nicole Plass, NIAMS; Laura Wall, NIDDK; promoted to lieutenant commander: Nikkia Powell, CC; Linhua Tzeng, CC; promoted to lieutenant: Anne Fejka, CC; Brittany Johnson, CC; Kelly Kerr, CC; Natasha Kormanik, NCI; Diamond Zuchlinski, NCI

Scientist—promoted to captain: Christine Hunter, NIDDK; promoted to commander: Adrienne Goodrich-Doctor, NIAID

Environmental Health—promoted to commander: Derek Newcomer, OD

Veterinarian—promoted to commander: Lauren Davidson, NIDCR

Pharmacist—promoted to commander: Fortin Georges, CC

Dietitian—promoted to commander: Merel Kozlosky, CC

Health Services—promoted to captain: Jasmine Aizvera, CC; promoted to commander: Idongesit Essiet-Gibson, NIAID; Janet Valdez, NHLBI; promoted to lieutenant commander: Rafael Torres-Cruz, OD; Rebekah Van Raaphorst, NIDDK

Mishoe closed the ceremony after recognizing recently retired officers, new officers called to active duty during the past year and Commissioned Officer Student Training and Extern Program participants.
Garofalo Named Chief of CSR Review Group

The Center for Scientific Review has selected Dr. Robert Garofalo as chief of its endocrinology, metabolism, nutrition and reproductive sciences (EMNR) integrated review group. He has been a scientific review officer at CSR, where he has coordinated the molecular and cellular endocrinology study section and the cellular aspects of diabetes and obesity study section.

“Bob brings impressive supervisory and leadership skills to this position,” said Dr. Richard Nakamura, acting CSR director. “These skills were developed leading research teams in the pharmaceutical industry and academia…and at CSR; he has excelled in leading SRO teams and mentoring new SROs.”

The EMNR group includes 11 study sections that review NIH grant applications for both basic and clinical research in molecular, cellular and higher order hormone-regulated processes in physiology and pathophysiology. The group includes research related to disorders of the endocrine system, diabetes, obesity, nutrition and metabolic disorders, as well as research related to the biology of reproduction and disorders of fetal and neonatal life.

Garofalo came to CSR from Pfizer Global Research and Development in Groton, Conn., where he directed a laboratory focused on diabetes drug discovery. He also worked to establish and lead a $14 million insulin resistance pathways collaboration that involved multiple Pfizer labs, four universities and a modeling company to identify new targets.

Garofalo began research on insulin receptor structure and function during his postdoctoral training at Memorial Sloan-Kettering Cancer Center. While assistant professor at the State University of New York Downstate Medical Center in Brooklyn, his laboratory determined the molecular structure of the insulin receptor homolog from the fruit fly; he was among the first to use this model to demonstrate a conserved role for insulin in the coordination of growth, metabolism, reproduction and lifespan.

Garofalo received his Ph.D. in anatomy and cell biology from Albert Einstein College of Medicine and also did postdoctoral work in the department of anatomy and cell biology at Columbia University.

Class of 2012 Project SEARCH Interns Graduate

The NIH community recently honored the accomplishments of the 2012 graduating class of NIH-Project SEARCH interns. Ten youngsters completed a 30-week unpaid internship in more than 15 training worksites across NIH. Designed to provide young adults with intellectual disabilities the opportunity for an independent future, the program offers total workplace immersion and helps build marketable skills.

The program is offered in collaboration with Project SEARCH, an international organization that works with hospitals and businesses to provide employment opportunities and experience for young adults with disabilities; the Ivymount School’s Post High School Program, a life skills program that prepares students ages 18-21 for a successful transition from school to employment and adult life; and SEEC, a local nonprofit that provides employment support to transitioning youth and adults.

Colleen Barros, NIH deputy director for management, congratulated the graduates: “Project SEARCH is a win-win for all of us. The interns get a 30-week training course that helps them with their skill sets. For the NIH, it enhances our culture, gives us an untapped pool to draw on and enhances the diversity of our workforce. It’s not just the right thing to do, it’s the best thing to do for our organization.”

To learn more about NIH-Project SEARCH, visit www.cc.nih.gov/projectsearch/about.html.
Rural Students Soar with ‘Aspirnaut’ Science Programs

By Amy F. Reiter

Brilliant minds can come from hard-to-reach places. That’s the thinking behind Aspirnaut, an NIDDK-supported program that encourages students from rural areas to learn about STEM fields—science, technology, engineering and math—in the hopes of sparking careers.

It worked for Cody Stothers. The Vanderbilt University junior began his Aspirnaut (www.aspirnaut.org) experience as a high school summer researcher at Vanderbilt. After his summer, he went home to Sheridan, Ark., where he served as a conduit between Aspirnaut and local middle and high schoolers. Stothers helped conduct science lab classes between Vanderbilt professors and rural students and teachers via videoconference and supported activities on a “Magic School Bus,” where academically gifted students were given computers and Internet access to do enrichment activities during their sometimes hour-and-a-half rides to and from school—just two facets of the Aspirnaut program.

“Prior to the Aspirnaut program, prior to college, I was not planning to be a scientist. [Both] helped me solidify in my mind that it would be a rewarding career for me,” Stothers said.

The program, begun by Dr. Billy Hudson—himself a product of a rural upbringing and now the Elliot V. Newman professor of medicine, pathology and biochemistry at Vanderbilt—is partly supported by NIDDK grants. The funding supports high school and college summer research experiences for students from rural areas or otherwise underrepresented groups.

In the program, Hudson said, students are exposed to scientists—including many from rural or disadvantaged backgrounds—and expected to learn and contribute. “When they return [to their community], they can dream and see the possibility that this way of life can include them,” Hudson said. “We’re shining the light out there, showing them a pathway to success.”

NIDDK originally began supporting the initiative in 2009 when Hudson successfully applied for an ARRA supplement through NIDDK to support the summer program for high schoolers and undergraduates. Hudson and his colleagues have been able to leverage this stimulus to a successful NIDDK AREA grant—a grant for undergraduate or underserved institutions—to Tennessee State University and an NIDDK education grant to Vanderbilt. Other students have been supported by the NIDDK Short-Term Education Program for Underrepresented Persons. “NIDDK is front and center in helping us [develop] this model,” Hudson said.

In addition, this year American Indian high school summer interns were supported in part by a Native American Research Centers for Health grant from NIH and the Indian Health Service.

Dr. Tracy Rankin, NIDDK career development and training program director of kidney and urologic diseases, said the Aspirnaut program fits an immediate need for “more undergraduates choosing to pursue basic research in our mission areas, including nephrology. There has been a dearth of interest in nephrology, so we, in conversation with the American Society of Nephrology, have tried to brainstorm how to recruit more individuals to this area. The consensus is that the earlier we target, the better.”

Several hundred students have taken part in some element of Aspirnaut, with many more to come. Aspirnaut co-founder and Vanderbilt assistant vice chancellor for health affairs Dr. Julie Hudson—also a pediatric anesthesiologist married to Dr. Billy Hudson—points to the numbers for results of the program’s success.

“At least 1 in 2 students state that the Aspirnaut program has impacted...their course choices and career goals,” she wrote in an email. Of the students who participated in high school summer internships, all but one who’ve since graduated have gone on to college and 25 of 27 of them have chosen STEM-related studies.

Stothers is among them. Three years after his first Aspirnaut experience, he has now been accepted early to Vanderbilt’s medical school and gives much credit to the program for his success. “I don’t know how I would have figured out any of this stuff otherwise,” he said. Programs like Aspirnaut “may even be essential to these small communities.”