

nih record



ABOVE • Hospital conditions are tough in Tanzania, where NIH funds make a difference. See story below.

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Time Off Good for Behavior

Retreat Refreshes Behavioral, Social Sciences Research Community

By Rich McManus

Dr. Christine Bachrach, acting director of the Office of Behavioral and Social Sciences Research, wanted just one thing out of the first-ever day-long retreat for NIH's widely dispersed community of behavioral and social scientists, held Nov. 12 at Natcher Bldg.

"We have a gold mine of behavioral and social science research talent at NIH, but we are scattered and very busy. We need strong connecting networks to find out who has what kind of expertise, and what the opportunities are," she said. "I hope the retreat empowers and connects the field. I hope attendees find collaborations and conversations they need to do their jobs effectively. This is a time of great opportunity and challenge. Behavior is a critical issue in diseases that drive up health care costs and kill people."

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OBSSR acting director Dr. Christine Bachrach opens recent retreat.

Collaboration, Capacity Building

NIH Funds Clinical Research in Tanzania

By Jenny Haliski

A wheelbarrow used for an ambulance. Dusty, rut-ridden roads that make seeing a doctor a rare event reserved for the seriously ill. Patients with limbs suspended by strings for skeletal traction to treat bones broken in car accidents. They lay several to a cot in rooms with more than a dozen beds.

These are a few scenes from Kilimanjaro Christian Medical Centre (KCMC), a hospital in the small town of Moshi in northern Tanzania near the foot of Mt. Kilimanjaro. KCMC, together with Duke University Medical Center and Kiwakkuki, a community organization fighting HIV/AIDS, receives NIH funding to conduct clinical research on HIV/AIDS, malaria, tuberculosis and other infectious diseases.

The seeds of the collaboration were sown in the 1980s, when Duke collaborated with Tanzanian colleagues in Dar es Salaam, where Prof. John Shao worked before he moved to

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Dr. Kathleen Carroll

CBT4CBT

New Hope for Treatment of Addiction

By Belle Waring

Drug addiction is notoriously tough to treat, but now research is showing a fresh way to tackle the problem.

It's called computer-based training for cognitive-behavioral therapy (CBT4CBT), an innovative program developed by Yale University School of Medicine's Dr. Kathleen Carroll and her colleagues. She recently visited NIH to discuss her research with a full house at Executive Plaza's Neuroscience Bldg. Her talk was part of OBSSR's Behavioral and Social Sciences Research Lecture Series.

"When I began [my research, funded by NIDA]," Carroll said, "it wasn't clear which therapies were effective or how they worked."

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briefs

STEP Forum on Bacteria, Jan. 13

The staff training in extramural programs (STEP) committee will present a Science for All forum on the topic, "Bacteria: Can't Live With 'Em, Can't Live Without 'Em" on Tuesday, Jan. 13, 2009, from 8:30 a.m. to 12:30 p.m. in Lister Hill Auditorium, Bldg. 38A.

Did you know that your body has 10 times more microbial cells than human cells? While bacteria have historically been associated with illness and disease, they are also integral to your health. The microbial ecosystem in the human body is not fixed but can be influenced by diet, obesity and other factors such as antibiotic use or abuse. Current research seeks to characterize our resident bacteria. This forum will present an overview of the fascinating roles of bacteria in human health.

APAO Holds Award Ceremony, Luncheon

NIH's Asian/Pacific Islander American Organization will hold its annual award ceremony and holiday luncheon on Tuesday, Dec. 16 from noon to 1:30 p.m. in Wilson Hall, Bldg. 1. This year's award recipients will be NHLBI's Dr. Keji Zhao, for scientific research, and NIMH's Dr. Maryland Pao, for excellence in management. APAO will also install new officers for 2009. Various ethnic foods will be served. A \$10 donation is requested at the door. For more information and to RSVP, contact Donna Wells at (301) 496-5248 or wellsdf@mail.nih.gov. For more information on APAO and its meeting schedule, visit www.recgov.org/r&w/apao/index.htm.

Clinical Center Creates CFC Participation Incentives

Last year, while looking for ways to increase participation during the Combined Federal Campaign, the Clinical Center came upon a new idea. The nursing department created a gift-basket drawing for those who pledge. "This idea was so successful," said CC Chief Operating Officer Maureen Gormley, "that it's back Clinical Center-wide and open to all NIH."

This year, 18 departments in the CC created themed gift baskets and a drawing was held, which anyone could enter. Baskets included spa packages and gift cards, even a Wii video system.

By purchasing a \$1 ticket (or 6 for \$5), entrants were eligible to win the baskets of their choice. The money earned for each basket goes to the charity of the winner's choice. In 2007, the

CC donated \$4,400 to CFC charities through this method.

Although NIH has been successful every year, earning more than half of HHS's CFC goal, there are great challenges for the CFC. In times of economic uncertainty, CFC charities need your help more than ever.

As a leader in the NIH CFC efforts, the CC team shares its success with others to make a difference. "We've found that NIH staff are extremely generous and interested in helping others, which is one of the reasons we work here," said Debbie Byram, CFC deputy coordinator for the CC.

As of Thanksgiving, NIH was at 61 percent of its \$2.2 million goal but had notched only 35 percent participation. To pledge in December, contact your keyworker. You can find more information about the CFC and its impact at <http://cfc.nih.gov>.



NIDA Hosts 'Drug Facts Chat Day'

NIDA's Drug Facts Chat Day, designed to educate teens about drug use, once again proved to be just as educational for the scientists answering the questions as it was for the students. At the second annual live chat, held Oct. 7, a team of more than 40 scientists and science writers from NIDA received more than 11,000 questions from high schoolers in 23 states.



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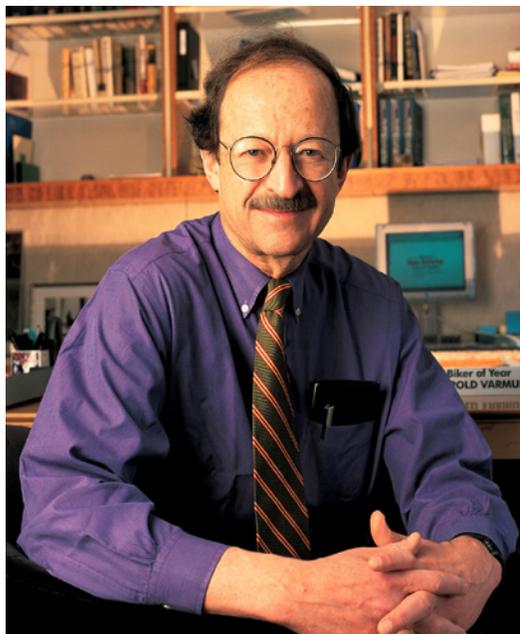
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Varmus To Speak on U.S. Commitment to Global Health

Dr. Harold Varmus, former director of NIH and co-recipient of a Nobel Prize for studies of the genetic basis of cancer, will present the 2008 David E. Barmes Global Health Lecture, titled "The U.S. Commitment to Global Health." The lecture will take place on Tuesday, Dec. 16 in Masur Auditorium, Bldg. 10 at 11:30 a.m. and will be followed by a reception sponsored by the Foundation for the National Institutes of Health.

Varmus serves as co-chair of the Institute of Medicine's committee on the U.S. commitment to global health, a study funded by 17 components of NIH as well as the CDC, the State Department, the Department of Homeland Security and a number of private foundations. The committee will issue its interim report to inform the incoming administration on the day preceding the lecture.

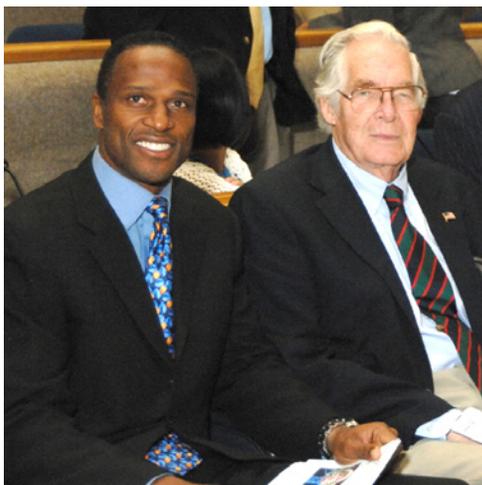
In addition, Varmus is president of Memorial Sloan-Kettering Cancer Center in New York City, chairs the scientific board of the Bill & Melinda Gates Foundation's Grand Challenges in Global Health program and leads the advisory committee for the global health division. He was a member of the World Health Organization commission on macroeconomics and health and is a co-founder of the Public Library of Science, a leading publisher of open access journals.

The Fogarty International Center and the National Institute of Dental and Craniofacial Research jointly host the annual Barmes Lecture, which honors the late Dr. David E. Barmes, who was a special expert for international health at NIDCR and served in senior management positions related to oral health, health promotion and non-communicable diseases at WHO.

Ex-Athlete Gault Warns of Heart Disease Dangers

Former Super Bowl wide receiver and gold medal-winning track and field star Willie Gault spoke at a program, "Sudden Death Risks in Young Athletes," at the National Library of Medicine recently.

Gault, who played in the National Football League for 11 seasons (including 5 for the Chicago Bears), was also a member of the U.S. Olympic track and field



Football legend Willie Gault (l) and NLM director Dr. Donald Lindberg prepare for a panel discussion on the importance of educating the public, and athletes in particular, about the risks of heart disease.

team and won gold and bronze medals in the World Track and Field Championships. He was also a member of the Olympic bobsled team. In all of these endeavors, he showed a gift for speed.

Now, however, he is in a race against time to help the 250,000 to 450,000 Americans each year who suffer sudden cardiac arrest. Gault took up the cause after the death of three friends and former NFL players from cardiac-related complications. He has channeled his energy into health education and efforts to provide medical access for everyone by founding the Athletes for Life Foundation.

"We need to change and do the right thing for people not only in America but around the world,"

Gault told his Lister Hill Auditorium audience. "We must make a change because our current system is not working. People are dying at a staggering rate; in fact, American Heart Association data show that approximately every 30 minutes, someone in America dies of heart disease.

"We now know that journalist Tim Russert had an EKG test 2 weeks before his death," Gault continued. "Todd Bell from the NFL had an EKG test 2 weeks before his death of heart disease at age 46. NFL athlete David Little had an EKG test 2 weeks before his death at age 44, from heart disease." Gault said he could list many other athletes, seemingly in the prime of life and peak of health, and many members of the public who died unexpectedly of heart disease before reaching age 50.

The program was well received by an audience of NIH staff and coaches from high schools in D.C., Maryland and Virginia. ●

Country Doctor Morton To Lecture, Dec. 17

Dr. D. Holmes Morton, founder and director of the Clinic for Special Children, which serves a largely Old Order Amish and Mennonite clientele in Lancaster County, Pa., will give the NIH Director's Wednesday Afternoon Lecture on Dec. 17. His talk, at 3 p.m. in Masur Auditorium, Bldg. 10, is titled, "A Pediatrician's Perspective on the Human Genome Project and Genomic Pediatrics."

Morton's clinic is a non-profit medical and diagnostic service for children with inherited metabolic disorders, which are more common in Amish country due to the general practice of marrying only within one's tight-knit community.

A high school dropout from rural West Virginia and a graduate of Harvard Medical School, Morton received the Albert Schweitzer Prize for Humanitarianism in 1993 and was awarded a MacArthur Foundation "genius grant" in 2006.

TANZANIA

CONTINUED FROM PAGE 1



Above:

Patients with their arms or legs suspended by strings for skeletal traction to treat bones broken in car accidents lay several to a cot in rooms with more than a dozen beds.

Right:

Dr. John Crump, an infectious disease physician and medical microbiologist at Duke University, serves as principal investigator at the Moshi site.

Moshi to become KCMC executive director in the mid-1990s.

The KCMC/Duke relationship moved with Shao and in 2002 expanded its focus on HIV/AIDS prevention, treatment and care. NIH funding followed and snowballed as grants to develop the site's infrastructure and capacity, launch an initial HIV voluntary counseling and testing service and establish training opportunities built on each other. The synergy of KCMC and Duke leadership, the number and diversity of international research grants and community involvement make Moshi an example of the complexities of conducting global health projects.

Dr. John Crump, Duke's principal investigator at the site, says they are fortunate to collaborate closely with two of Tanzania's leading health care and research organizations: KCMC and Kiwakkuki (the name is an abbreviation of the Swahili phrase, "Women aggressively fighting HIV/AIDS"). Although the site's research focus has been HIV/AIDS and other infectious diseases, it is expanding into other health issues: cervical cancer, cardiovascular disease and car crashes.

"I take a long time-horizon—decades—to measure progress," said Crump. "Over that length of time, what staff can we train, what infrastructure can we establish and what papers can we publish with data that will influence health policies? Our goal is to deliver all aspects of the program into well-equipped Tanzanian hands. That's probably about 10 years away."

According to Shao, the country's current ratio of physicians to patients is one to 23,000. Programs such as the Fogarty International Center's AIDS International Training and Research Program (AITRP), which began in 1988 to provide training for scientists in low- and middle-income countries and strengthen their institutions' HIV-related research and public health capacities, address this eagerness for increasing medical heft. "AITRP complements our training efforts. KCMC staff return from their experiences and train others," Shao said.

One of the Moshi site's biggest challenges was meeting NIH criteria for biotechnology labs. International NIH-funded sites must meet the same standards as NIH-funded labs within the U.S. on everything from maintaining lab instruments to keeping room temperature within a set range. Those might seem like easy tasks until you consider the frequent power outages



that can last minutes, hours or days and daily power surges.

Lab supervisor Anne Morrissey, who arrived in Moshi in 2005, established the quality control system now in place. "It's very gratifying to watch the lab work as it should. We've had very interesting findings in our research, saved lives, given physicians information that will help them make better clinical decisions, trained the next generation and made a difference," she said.

Community feedback is critical to sustaining the site's projects. The Moshi community advisory board is the mechanism for discussing clinical research in plain language understandable to local people, in this case, Kiswahili.

Kiwakkuki also partners with the site. A response from the women of Moshi to HIV/AIDS in 1990, the group's more than 6,000 volunteers and 44 employees teach their neighbors about HIV prevention and help individuals and families affected by the disease.

Kiwakkuki penetrates deep into rural villages through a network of grassroots volunteers. Its research involvement took the global stage during summer 2008 at the XVII International AIDS Conference in Mexico City, where the Duke team presented research on barriers to accessing HIV services and awareness of anti-retroviral therapy (ART). About 7 percent of Tanzanians are HIV-positive. The study, which Kiwakkuki assisted by distributing questionnaires, found that 98 percent of first-time HIV testers knew that ART exists, but fewer than 50 percent believed that they could get ART if they tested positive. Although ART was made free of charge in Tanzania in 2004, only about 15 percent of people know of their HIV status and only 18 percent of those who need ART are receiving it.

Fighting infectious diseases and addressing chronic, underserved health issues in developing countries is a goal that requires many partners. In the crucible of Moshi, Tanzania, committed individuals and organizations—including NIH, KCMC, Duke and Kiwakkuki—are making progress in bringing that vision to reality. ●



Dr. Elaine Ostrander and NHGRI scientific director Dr. Eric Green

Ostrander's Mider Lecture Tells Tales of Dog DNA

By Raymond MacDougall

Those attending the 2008 G. Burroughs Mider Lecture in Masur Auditorium gained a greater appreciation of canine genomic research and the complex traits of dogs, whether attentive companions, specialized workers or show contenders. Leading canine geneticist Dr. Elaine Ostrander, chief of NHGRI's Cancer Genetics Branch, presented the lecture, named for the first director of NIH laboratories and clinics. The honor of delivering the lecture is extended each year to an NIH intramural scientist for his or her outstanding contributions to biomedical research.

Ostrander's studies capitalize on several hundred years of closed breeding that has produced a fantastic variety in the size and shape of more than 400 dog breeds recognized worldwide. Her work draws mostly on the 150 or more breeds recognized by the American Kennel Club. Ostrander's talk described several genomic and genetic research projects that are exploring this remarkable morphologic and behavioral diversity.

One breed in particular—the Portuguese water dog—has helped Ostrander and her colleagues discover a gene variant related to stature in dogs, precisely because a broader-than-usual range of size variations is allowed in this breed. Some particularly small dogs, like Chihuahua and Pekingese breeds, have the same gene variant as those of small Portuguese water dogs.

Another breed sometimes bred for racing—the whippet—was used to identify another gene variant that gives a speed advantage when present in one but not two copies. Ostrander also said that the coats of dogs present many other traits for discovery, including determination of texture or growth patterns that give some animals unique features that breeders call furnishings.

“This multi-breed approach is a very powerful way of doing complex genetics,” Ostrander said. “Each one of the 150 or so breeds offers unique opportunities for thinking about genes that are responsible for phenotypes that are of interest to ourselves.”

Work in her laboratory also explores cancer susceptibility in canines and humans—including squamous cell carcinoma, bladder cancer and a soft tissue cancer called malignant histiocytosis—because many canine cancers closely parallel those in humans.

Ostrander explained that any fixed, breed-defining canine trait can be mapped. She and collaborators are engaged in a canine-mapping initiative called CANMAP, which involves the genetic analysis of 1,000 dogs from 85 different breeds. The CANMAP dataset will ultimately be publicly available, giving any researcher the opportunity to access the data, Ostrander said. Her laboratory will use this data to perform genome-wide association studies to identify regions of the canine genome statistically linked to traits of interest.

A remarkable component of Ostrander's laboratory effort is the collection of blood and saliva samples at events such as dog shows and obedience and herding trials. The research is accomplished without the need to breed or house dogs, as the group has built important collaborations with dog owners and organizations.

The annual Mider lecture is part of the NIH Director's Wednesday Afternoon Lecture Series. Archives of this talk and others in the series can be viewed online at the NIH Videocasting and Podcasting portal of the Center for Information Technology. 

CSR Names Ethics Coordinator, Deputy EO

Lynn Pupkar is the new ethics coordinator and Kevin Laser has been named deputy executive officer at the Center for Scientific Review.

Pupkar will work to ensure employee compliance with ethics rules, regulations and policies. She is the first point-of-contact for CSR employees and managers and will answer questions or requests related to outside activities, outreach, gifts and financial disclosure.

She has been at NIH since January 1983. Before joining CSR, she worked in the NIH Ethics Office, where she dealt with a range of ethics matters and served as the NIH ethics advisory committee coordinator. Pupkar also worked at various institutes and centers as a human resource specialist; she was human resources team leader in 2003-2005.

Laser takes a newly established position in the Office of the Director. The new role is in addition to his work as chief of the Financial Management Branch, a role he has held for 3 years. He also oversees the Committee Management Branch and the Division of Management Services management analysts and is project officer for one of CSR's contracts.

Laser's NIH career started in the Clinical Center's rehabilitation medicine department, where he worked as a recreation therapist in 1991. Three years later, he began his career in budget in the central budget office of NIH and then moved to the National Institute on Aging and the National Institute of Nursing Research, ultimately serving as budget officer at both institutes.



Kevin Laser has been named deputy executive officer at the Center for Scientific Review.



RETREAT

CONTINUED FROM PAGE 1

Above: Participants in the recent OBSSR-sponsored retreat included (from l) NCI's Dr. Robert Croyle, who directs the Division of Cancer Control and Population Sciences; NIDA director Dr. Nora Volkow; and NIMH director Dr. Thomas Insel.

PHOTOS: MICHAEL SPENCER

A demographer who does population research at NICHD, Bachrach has been acting OBSSR director since last April. Noting that "NIH has invested an enormous amount in genetic research," she stressed the "need to understand how genes and the environment interact. That's a real frontier for the behavioral and social sciences."

And not just a frontier, but an imperative, suggested NIH acting director Dr. Raynard Kington, who closed the meeting by saying, "Behavioral and social science research must continue to define their roles in the next generation of genomics research. Mapping the human genome is the biggest scientific achievement of our lifetimes. There has to be a vision for the behavioral and social sciences in understanding gene-environment interactions."

A member of the B/SSR community himself, Kington urged the community to "emphasize interventions for the short run, for the here and now, while continuing to expand our knowledge base for understanding fundamental causal pathways." He also said the community "should be leaders in portfolio analysis and the management of science" and should look for imaginative ways to connect its investments with broad national issues where appropriate.

"I'm not arguing for 'mission creep' for this agency," he cautioned, "but other disciplines are thinking about how their disciplines might be relevant beyond their usual applications. We're on the verge of a deep and lengthy recession [so] more sophisticated arguments are needed in lean times. We will all be asked to do more with less."

NIH funding for B/SSR "hovers around one-tenth of the NIH budget," said Bachrach, but the field has nonetheless contributed significantly in such areas as diabetes management, reduction of both tobacco use and the spread of

HIV, addressing obesity and outlining the role of stress in cancer.

"The old models of health care are being challenged by spiraling health care costs," warned Bachrach. "We need to help develop a sustainable approach to health and health care. What are cost-effective prevention strategies? What are the behavioral aspects of health management?"

A panel of representatives from the institutes that have the broadest B/SSR portfolios helped answer those questions in front of an audience that included about 350 people from intramural and extramural NIH who participated in the retreat's plenary and breakout sessions.

NIDA director Dr. Nora Volkow acknowledged that "social symptoms are crucial in drug addiction and treatment," then pointed out three current public health challenges with major behavioral components: smoking, obesity and the chronic ailments of an aging population.

"Smoking continues to have the number one impact on morbidity and mortality," she said. Despite a dramatic reduction in the number of smokers (50 percent of males smoked in the 1950s, but only 20 percent smoke today, she reported), the downward curve has reached a stubborn plateau. "We can't seem to make a dent in that last 20 percent," she said.

She reported a "tremendous increase in the rate of type 2 diabetes in young people," which is associated with obesity. "It used to be quite rare to have an adolescent with type 2 diabetes."

The aging population, too, has needs that could be addressed elegantly by behavioral science. "How to implement effective interventions is the greatest area of opportunity in science," she said.

Her prescription was threefold: Focus on epigenetics, or the study of gene-environment interactions; employ advances in imaging sci-



ence to learn more about brain regions involved in behavior and decision-making; and study the role of social stressors in disease.

NIMH director Dr. Thomas Insel, whose institute has traditionally been seen as the default home of B/SSR at NIH, said NIMH currently commits some \$84 million to basic behavioral and social science research and \$425 million to behavioral research more generally, but added “there is a great need for continued investment.” While it is essential, he said, that NIMH plumb the underlying physiological defects in such disorders as schizophrenia, ADHD and mood disorders—at the level of what he called “genes, cells and circuits”—it is also important to learn how such interactions affect behavior and function. “We need to study both,” he argued.

He noted that HIV transmission rates “have not budged in the past 12 years—there are about 55,000 new cases each year in the U.S.” Behavioral prevention, he said, “is the best vaccine we’ve got so far.”

Dr. Robert Croyle, who directs NCI’s Division of Cancer Control and Population Sciences, said that NIH, for the behavioral scientists who work here, “is like a university without a college of arts and sciences.” He said NIH needs to integrate B/SSR more effectively with basic biomedical research: “We could be a linking discipline across the institutes...a tremendous amount of collaboration could occur at NIH, but does not because many institutes lack a critical mass of behavioral and social science researchers.”

Congress is frustrated with NIH, he said, because we don’t deliver enough useful public health interventions. “We need to broaden the definition of translational research so that we’re not just talking about drug development all the time,” he said.

Croyle called for buttressing NIH contributions to health care delivery systems and for collaborating more with the National Science Foundation, which supports much basic behavioral research. “We also need tools to support methodology and measurement research,” he said, noting that recent Roadmap initiatives have helped to strengthen this area.

Many in the B/SSR field at NIH used to feel like “fourth-class citizens” but have ascended to second-class status, he said.

Former OBSSR director Kington had a remedy for that: “If you’re really smart and dedicated and believe in what you do, that will win the day in the long run.”

Above:

NIMH deputy director Dr. Richard Nakamura (c) hosts one of 9 informal lunch roundtables during the retreat segment “Conversations with Senior Staff.”

Below:

Dr. Richard Suzman (r), director of the Behavioral and Social Science Program at NIA, moderates the panel discussion during OBSSR’s Nov. 12 retreat.



NEW HOPE

CONTINUED FROM PAGE 1



"[Our program] is distinguished by its staying power and its greater durability," said Carroll. "We're really teaching people skills and strategies they seem to be able to use."

We had to get very serious if it was going to be taken seriously in some of the same ways as pharmacotherapy."

Cognitive-behavioral therapy (CBT) is a kind of "talk therapy" that focuses on patterns of thinking, the beliefs that underlie them and how they influence behavior and emotions. It tends to be goal-directed rather than open-ended.

"The building blocks of CBT are beautifully generalizable," Carroll explained. "First, we work with basic issues such as coping with craving, skills for refusing offers of drugs, thoughts about drug use in ways that can be useful with managing powerful emotions, acting effectively and assertively and solving problems." The point is to modify attitudes and increase ability to handle stressors, as in the triggers for substance use.

So she had an idea: Why not deliver CBT by computers?

The stakes are huge. According to NIDA, in 2006, 21.2 million people (8.6 percent of the population age 12 and older) needed treatment for an illicit drug or alcohol use problem but did not receive it. Even after long periods of abstinence, addictive relapses can occur at rates similar to other chronic diseases like diabetes, hypertension and asthma. The cost of illicit drug abuse is \$181 billion per year.

That's the cost to society. The human cost—to addicted individuals themselves, families and friends—is incalculable.

Carroll and her team designed a clinical trial in which 77 individuals seeking outpatient treatment for substance dependence were randomly assigned to standard treatment ("therapy as usual," as in a group setting) or standard treatment with biweekly access to the CBT4CBT computer program.

"Access" here means a computer-based, interactive program that her team designed, said Carroll, playing a module to illustrate. Some features:

- Interactive videos show characters (portrayed by professional actors) openly struggling with real-life situations. The user can play a clip, and then stop it at will. Narrators appear, addressing the user, who can replay the story and/or change the ending, depending on choices the user makes.

- The program has seven modules, 1 hour each.

- It's user-friendly and doesn't require any experience with computers, with very little text.

- There are many interactive exercises and quizzes.

There's also homework, or practice exercises, Carroll said. "Homework correlates with skill acquisition and with drug use outcomes. At the end of therapy, the quality of response increases; it also increases the resourceful variety of alternative coping behaviors. It's a nice clear relationship."

Not only did it teach valuable coping skills, said Carroll, "The patients loved it. We got a high satisfaction rating.

"It's only 77 people and we need to replicate the study and refine the program," she continued, "but if this were a medication it would be good news."

Indeed it is good news: those assigned to the CBT4CBT program showed significantly more negative ("clean") urine specimens and, on follow-up, stayed abstinent longer than those who received standard treatment.

"It's a sleeper effect," said Carroll. At 6-month follow-up, CBT individuals continued to improve, while the "therapy-as-usual" cohort was edging back to pre-treatment levels.

And since it's cost-effective, the computer-based program may provide an important means of making such therapy more broadly available.

Although cognitive therapy makes good scientific and economic sense, in the real world it's rarely implemented because of therapy trends and staffing constraints in community settings. In addition, only a small fraction of addicts seek therapy. That's where computers come in.

"Computers with multimedia can show skills," Carroll stressed. "It's not just clinicians explaining concepts in an abstract way." Anyway, busy clinicians, especially in group therapy settings, may lack time to give much individual attention.

NIDA already uses an HIV risk-reduction CBT program. Using the same methodology, across different studies, the CBT program has enormous possibilities: "Broadening the base," Carroll stressed, "is where I'm hoping we can really have an effect. We can actually deliver CBT via the web, and begin to have impact on prevention.

"[Our program] is distinguished by its staying power and its greater durability," said Carroll. "We're really teaching people skills and strategies they seem to be able to use." 🗨️



NINR director Dr. Patricia Grady spoke recently at a Georgetown University panel.

Grady Participates in GU Panel on Systems Medicine

As part of recent convocation ceremonies at Georgetown University Medical Center, NINR director Dr. Patricia Grady took part in a panel discussion on “Systems Medicine & Health Care Delivery.”

Dr. Bette Jacobs, dean of Georgetown’s School of Nursing and Health Studies, moderated the panel, which also included Dr. Leroy Hood, founder of the Institute for Systems Biology; Dr. Gregory Downing, project director for the Personalized Healthcare Initiative at HHS; and Dr. Frederick S. Lee, product manager for personalized medicine and genomics at the McKesson Corp. The panelists spoke on the potential impact of systems medicine. According to Hood, a systems view of medicine perceives the functions of life as mediated by biological networks; human disease occurs when one or more of these networks become perturbed, such as by abnormal environmental signals or genetic mutations.

Grady described how nursing fits into this model by translating new research findings into clinical practice. “Nurse scientists will lead or contribute to many of the groundbreaking advances,” Grady said. “This is reflected in the science we support today. NINR has made the integration of biology, behavior and environment a fundamental tenet of its research portfolio.”

Grady noted that recent breakthroughs have contributed new knowledge about genetic and protein biomarkers that can improve predictions of not only who is at greater risk for certain diseases, but also who is most likely to respond to treatment. For example, she said, “Scientists are using new genetic and proteomic tools to better determine an individual’s response to pain and treatments for pain.” This research has increased the understanding of individual variations in response to analgesic treatments for chronic pain conditions.

“The coming years will bring many significant advances in understanding health and disease in terms of systems biology, but the translation of these discoveries into improved patient health will be the responsibility of those individuals on the front lines at the patient interface of health care. Now is the time to prepare for the coming changes,” Grady concluded. ●

White House Announces New NCAB Members

The White House recently announced the appointment of seven new members to the National Cancer Advisory Board and the redesignation of NCAB chair Dr. Carolyn Runowicz.

Runowicz is director, Carole and Ray Neag Comprehensive Cancer Center, Northeast Utilities chair in experimental oncology, professor of obstetrics and gynecology, University of Connecticut Health Center. She is a nationally prominent expert in gynecologic cancers and women’s health and is involved in many national health organizations and professional societies.

Dr. Victoria L. Champion is associate dean for research, Edward W. & Sarah Stam Cullipher endowed chair, Mary Margaret Walther distinguished professor of nursing, Indiana University School of Nursing. Her research focuses on the areas of oncology care, early detection, symptom intervention and quality of life.

William H. Goodwin, Jr., is chairman and president, CCA Industries, Inc., a diversified holding company in Richmond. His expertise is in finance and administration.

Dr. Waun K. Hong is professor and head, division of cancer medicine, department of thoracic/head & neck medical oncology, University of Texas M.D. Anderson Cancer Center. He has developed novel treatment approaches that have enabled thousands of laryngeal cancer patients to avoid radical surgery.

Dr. Judith S. Kaur is professor of oncology, department of medical oncology, Mayo Clinic, and medical director, Native American Programs, Mayo Comprehensive Cancer Center. She has devoted her career to the improvement of survival rates for American Indians with cancer.

Mary V. Lester is on the board of directors, University of California, San Francisco Foundation. A longtime supporter of the UCSF Comprehensive Cancer Center, she named one of the urologic laboratories at UCSF Mission Bay’s forthcoming cancer research facility.

H. Kim Lyerly is director, Duke Comprehensive Cancer Center, and George Barth Geller professor of cancer research, Duke University Medical Center. His research interests include breast cancer and also developing antigen-specific immunity in patients with cancer.

Dr. Jennifer A. Pietenpol is director, Vanderbilt-Ingram Cancer Center and B.F. Byrd, Jr., professor of oncology, professor of biochemistry, Vanderbilt University Medical Center. Her research focuses on the p53 signaling network—the most frequently targeted area for mutation in human tumors.



NCI director Dr. John Niederhuber (front, fourth from l) recently welcomed new NCAB members. They are (front, from l) Dr. Waun Hong, Mary Lester, Dr. Carolyn Runowicz, Dr. Jennifer Pietenpol, Dr. Judith Kaur. In the second row are (from l) Dr. Victoria Champion, William Goodwin and Dr. H. Kim Lyerly.

A Successful 'Nightingala' for NINR

By Ray Bingham

Nearly 1,000 nurse scientists and faculty, deans of nursing schools, presidents of medical schools, directors of health-related associations, corporate and community leaders and members of Congress gathered recently for a lively evening of dinner and conversation at the annual Nightingala in Washington, D.C. Hosted by the Friends of the National Institute of Nursing Research, the event celebrated nursing science and NINR.

FNINR seeks to support research-based practice by educating all health care professionals, Congress and other appointed and elected officials and the public about advances made through nursing research and its benefits to patients, families, the community and the delivery of quality health care. It also provides resources to support nursing research and advance the mission of NINR.

Under the event's theme of "Discovery & Recovery: Celebrating Mental Health and Nursing Research," keynote speaker and former First Lady Rosalynn Carter spoke of her family's strong connection to mental health. Through the Carter Center in Atlanta, she created a mental health task force, an advisory body of experts, consumers and advocates promoting positive change in the mental health field. In addition, she hosts the Rosalynn Carter Symposium on Mental Health Policy, bringing together leaders of the nation's mental health organizations to address critical issues. She also described her family's strong connection to nursing—Lillian Carter, the mother of former President Jimmy Carter, served as a community health nurse in Plains, Ga., and later with the Peace Corps in India.

In her remarks, NINR director Dr. Patricia Grady stated, "This evening of celebration is a unique opportunity to showcase nursing research and the exciting progress being made by a growing number of accomplished nurse scientists...Currently, NINR-supported researchers are investigating a broad range of mental health-related issues including depression among patients and caregivers, patient stress and coping strategies and access to mental health care services."

Also attending was Dr. Thomas Insel, director of the National Institute of Mental Health. As Grady noted, "Collectively, our institutes develop new and better approaches to address the diverse needs of people with mental health challenges."

In conclusion, Grady said, "NINR has had a very successful year in large part because of the expertise of the scientists represented in this room and their persistent commitment to advancing science through research. I am proud of how research funded by NINR is reducing the impact of illness, improving quality of life, reducing health care costs and changing practice." 🗨️

Wanke Joins OBSSR as Administrator

Dr. Kay Wanke has joined the Office of Behavioral and Social Sciences Research as a health scientist administrator focusing on research at the intersection of genetics and behavioral and social sciences, including gene-environment interaction. Previously a health scientist administrator in the Epidemiology Research Branch at the National Institute on Drug Abuse, Wanke brings a wealth of experience to OBSSR. She will continue to co-lead a trans-NIH funding opportunity as part of the Genes, Environment and Health Initiative for the development of tools to measure exposure to psychosocial stress and addictive substances.

Wanke received her Ph.D. in clinical psychology from Southern Illinois University at Carbondale and completed her pre-doctoral internship at the University of Alabama at Birmingham School of Medicine. Her training in clinical psychology includes child psychology, forensic psychology, substance abuse, serious mental illness, marriage and family therapy and developmental and neuropsychological assessment. She came to NIH in 2001 as a cancer prevention fellow at the National Cancer Institute. During her fellowship, Wanke completed her M.P.H. at Harvard School of Public Health. In addition, while at NCI, she received further training in tobacco control, genetics and behavioral genetics.

At NIDA, her portfolio of grants covered the areas of tobacco, genetic and behavioral epidemiology and novel and improved phenotypes of tobacco and other drugs of abuse. She has also served on a number of working groups and committees including the NIDA genetics consortium steering committee. Wanke's research has covered a variety of topics including tobacco use and depression, factors associated with adherence and behavioral genetics of smoking cessation.

Wanke is particularly excited to have the opportunity to stimulate research in genetics and behavioral and social science. "This is one of the true frontiers in research," she said. "The explosive growth in genetics provides a wealth of opportunity for new avenues in the behavioral and social sciences."



NINR director Dr. Patricia Grady (l) joins former First Lady Rosalynn Carter at the FNINR Nightingala.



Dr. Vivian Pinn (second from r), ORWH director, greets seminar speakers (from l) Dr. Jeannette Brown of the University of California, San Francisco; Dr. Scott Hultgren of Washington University Medical School; and Dr. John DeLancey of the University of Michigan Medical School.

Sex and Gender in the Urinary Tract Examined at ORWH Seminar

By Marsha S. Love

The Office of Research on Women's Health recently held a Women's Health Seminar Series on Sex and Gender in the Urinary Tract. The 2008 seminar series has featured principal investigators from the Specialized Centers of Research on Sex and Gender Factors Affecting Women's Health, an ORWH interdisciplinary initiative.

Opening the seminar, NIDDK director Dr. Griffin Rodgers said, "Women are disproportionately affected by many benign urologic diseases. Women are 7 times more likely than men to have the disorder and urinary incontinence costs consumers more than \$15 billion per year. Factors that cause incontinence in women include giving birth, having a muscle injury or pelvic floor dysfunction, and aging. For men the primary causes are prostate surgery, obstruction and aging."

Rodgers noted several NIH initiatives on urologic health, including the Urinary Incontinence Treatment Network, the Pelvic Floor Disorders Network and the Multidisciplinary Approach to the Study of Chronic Pelvic Pain Research Network.

Dr. Scott Hultgren, director of the Center for Women's Infectious Disease Research at Washington University Medical School, emphasized the recurrence rate for urinary tract infections (UTIs) in women is 30 to 40 percent. This high rate of recurrence can be explained by bacteria attaching to the surface tissue of the bladder and forming reservoirs in the bladder that serve as a breeding ground for bacteria to seed and cause repeated infection. He said treatment for persistent UTIs should include the use of a strong class of antibiotics at the first sign of symptoms.

Dr. John DeLancey, director of the Fellowship in Female Pelvic Medicine and Reconstructive Surgery, University of Michigan Medical School, presented his work on stress urinary incontinence (SUI). Incontinence due to coughing, laughing, sneezing or anything that increases pressure on the bladder, SUI is primarily due to a decrease in the maximal urethral closure pressure. This pressure decreases each year as we age. Future treatments, he explained, may include injecting stem cells into the bladder so that muscle fiber can be repopulated. Health care providers also need to take preventive measures in the delivery room to preclude the onset of SUI following the birth process.

Diet and exercise can prevent or prolong the onset of diabetes and decrease the risk of many other health problems. Dr. Jeanette Brown, director, Women's Continence Center, University of California, San Francisco, explained her study of a 6- to 12-month lifestyle intervention that demonstrated weight loss also decreased urinary incontinence by 25 to 46 percent. She said, "Weight-loss benefits of decreased cholesterol and blood pressure may not be immediately observed, but urinary incontinence is a unique motivator for weight loss since the effect is immediate." 🍌



NICHD director Dr. Duane Alexander (standing, second from l) and deputy director Dr. Yvonne Maddox (seated, r) welcome new council members (front row, from l) Dr. Kathryn Lynn Cates, Dr. Gail Martin, (second row, from l) Dr. Perri Klass, Dr. Rosemarie Truglio and Dr. Sherin Devaskar.

Five Join NICHD Advisory Council

Five new appointments have been made to the National Advisory Child Health and Human Development Council. They are:

Dr. Kathryn Lynn Cates, a specialist in pediatric infectious diseases and childhood immunizations. She is adjunct associate professor of pediatrics, Rainbow Babies and Children's Hospital, Case Western Reserve University.

Dr. Sherin Devaskar, a neonatologist with expertise in fetal-neonatal nutrition, placental transfer, growth, intrauterine growth retardation, cerebral glucose metabolism and a variety of topics related to neonatal and perinatal physiology. She has authored or coauthored nearly 100 papers and some 150 abstracts.

Dr. Perri Klass, professor of journalism and pediatrics at New York University and president and medical director of the Reach Out and Read National Center, Boston Medical Center, Boston University School of Medicine. She has written 10 books of fiction and nonfiction and has received five O. Henry Awards.

Dr. Gail Martin, a developmental biologist who has made significant contributions that have revolutionized the study of molecular and genetic control of embryonic vertebrate development, from early development and gastrulation through organogenesis. She was the first to demonstrate the isolation of pluripotent embryonic stem cells from mouse embryos, which allowed for the development of knockout mice technology.

Dr. Rosemarie Truglio, a developmental psychologist who conducts research on the effects of media on children. In her position at the Sesame Workshop, she assesses the role of television in the socialization and education of children and also develops and reviews the content across all *Sesame Street* products and programs.



The Doctor Is In—in China

Email Prompts NEI Director to Examine Patient Abroad

By Allyson T. Collins

In advance of NEI director Dr. Paul A. Sieving's recent trip to China, a poster at Tianjin Eye Hospital promoted one of his lectures. Just days before Sieving was scheduled to speak, a local high school English teacher saw the poster and immediately thought of his father who was experiencing vision loss.

The man turned to the Internet, where he found NEI's email address for public inquiries. He wrote: "I've checked out your web site, which gives me the impression that you do research, not treatment. However, I still bear the slightest hope that Dr. Sieving can give my father's eyes a look during his stay in Tianjin...my family and I are really anxious and worried about his eyes."

An NEI communications staff member forwarded the message to Sieving. He was already en route to China but immediately agreed to the request.

"This was an opportunity for me to gain insight into the realities of eye care in China," he explained. "Not only was this a chance to see eye care from a patient's perspective, but it was also a unique means for an educational collaboration."

Sieving examined the 60-year-old man at Tianjin Eye Hospital while seven other health care professionals observed. Their discussions resulted in a diagnosis of choroidal neovascular age-related macular degeneration, which causes loss of vision from the growth of new blood vessels in the eye. The man underwent imaging tests and was later evaluated for treatment.

"This is an example of how NIH scientists can form international collaborations that

start at the level of a single patient and may ultimately grow to include innovative training and research programs," said FIC director Dr. Roger Glass.

In fact, Sieving's visit was not the first partnership between NEI and Tianjin Eye Hospital. Dr. Ningdong Li, a fellow in NEI's Ophthalmic Genetics and Visual Function Branch, came to the institute from the Eye Hospital in November 2007.

"Today the world has become smaller and smaller," Li said. "Every year more foreign experts visit our hospital in Tianjin."

He said that in the future, he hopes to return Sieving's favor. "After training at NEI, I think I can go back to China and make progress in vision research." 🗨️

Left: NEI director Dr. Paul A. Sieving (l) and Tianjin Eye Hospital director Dr. Kanxing Zhao

Right: Sieving with Dr. Chen Song (r) of Tianjin Eye Hospital and the patient's family



Londos Honored by Obesity Society

Dr. Constantine Londos (r) received the Obesity Society's Stunkard Lifetime Achievement Award from Dr. Eric Ravussin Oct. 4 at the society's annual meeting in Phoenix. Londos was recognized for his many contributions to adipocyte research. The award recognizes outstanding contributions to the field of obesity through scholarship, mentorship and education. Recipients receive a \$1,000 cash prize and present the plenary Friends of Mickey Stunkard Award Lecture.