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Clinical Center Extra Control Control

Cochlear implant expert to speak at the Astute Clinician lecture

pioneer in the field of cochlear implantation, Dr. Richard T. Miyamoto will speak at the sixth Astute Clinician Lecture on November 5, 4 p.m., in Masur Auditorium. "Cochlear Implants: Past, Present and Future," is the title of Miyamoto's presentation. He is the Arilla Spence DeVault professor and chairman of the Department of Otolaryngology-Head and Neck Surgery at Indiana University School of Medicine.

Cochlear implants allow many deaf individuals to hear—often for the first time. Miyamoto has been implanting these life-changing devices in the ears of adults and children for many years. His research has focused on the early identification and intervention of hearing loss. This led to lowering the appropriate age limit for identification of hearing loss to as early as three months, and the appropriate intervention to as early as six months. When conventional hearing aids don't work, cochlear implants are an option.

Done correctly, Miyamoto determined, the risk of implantation at such an early age is no greater than for older children. And it is anatomically feasible because the cochlea is the same configuration at birth as it is in adulthood. His research has determined that early intervention with cochlear implants results in improved speech and language skills.

Miyamoto received a bachelor's degree from Wheaton College, Wheaton, Ill., an M.D. from the University of Michigan, and an M.S.

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50th Anniversary scientific symposium to be held October 14

The Clinical Center's 50th anniversary celebration will continue with a day-long scientific symposium in Masur Auditorium on October 14 from 8 a.m. to 5:30 p.m.

"The Past, Present and Future of Clinical Research" will explore clinical advances that have taken place in the Clinical Center in cancer, heart disease, neuroscience, infectious disease, and the molecular basis of disease since the Clinical Center opened in 1953. It will also address future plans for research at the Clinical Center.

Cancer therapeutics will be addressed by Dr. Vincent T. DeVita, professor of medicine, epidemiology and public health at the Yale University School of Medicine; Dr. Thomas A. Waldmann, chief of the NCI Metabolism Branch; and Dr. Steven A. Rosenberg, chief of the NCI Surgery Branch.

Cardiovascular disease will be covered by Dr. Eugene Braunwald, Hersey Distinguished Professor of Medicine at Harvard Medical School



Dr. Elias Zerhouni

The NIH Roadmap

n Wednesday,
October 22, from
noon-1 p.m., NIH
Director Dr. Elias Zerhouni
will present the Third Annual
John Doppman Memorial
Lecture at the Lipsett
Amphitheater.

Entitled, "The NIH Roadmap: Meeting the 21st Century Research Needs," the lecture can be accessed on the NIH Videocast at http://videocast.nih.gov.

and Dr. Elizabeth G. Nabel, scientific director for clinical research, NHLBI.

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in Otology from the University of Southern California. He was awarded a Doctor of Engineering degree from the Rose Hulman Institute of Technology. He completed his residency at Indiana University and a fellowship in Otology and Neurotology at the House Ear Institute.

He has served as president of the American Neurotology Society, president of the Association for Research in Otolaryngology, President of the William F. House Society and vice-president of the Triological Society. He is a member of the board of Scientific Trustees of the Deafness Research Foundation and is a member of the medical



Dr. Richard T. Miyamoto

advisory board of the National Organization for Hearing Research. He serves on the Indiana Speech and Hearing Licensing Board, the Executive Committee of the

American Auditory Society, and is a director of the American Board of Otolaryngology. Miyamoto chairs the research liaison subcommittee of the American Academy of Otolaryngology-Head and Neck Surgery. He is associate editor for Otolaryngology-Head and Neck Surgery and JARO.

The Astute Clinician Lecture was established through a gift from Haruko and Robert W. Miller, M.D. It honors a U.S. scientist who has observed an unusual clinical occurrence, and by investigating it, has opened an important new avenue of research.

The lecture is an NIH Director's Wednesday Afternoon Lecture Series event. It is hosted by the Clinical Center. For information and accommodations for the lecture. contact Hilda Madine, 301-594-5595.

Department of Spiritual Ministry to celebrate Spiritual Care Week, Oct. 20-24

piritual Care Week, sponsored by the Department of Spiritual Ministry, begins Monday, October 20. According to Clinical Center Chaplain Karen Morrow, it will highlight the relationship between mind and body.

"There is a very practical reason to recognize the impact of spirituality in each patient's life as they participate in research here," said Morrow. "Our goals for Spiritual Care Week are twofold. First, we want our colleagues in medicine, nursing and the other Clinical Center disciplines to hear

and know more about the interconnection of spirit, mind and body and we want to increase the visibility of Clinical Center chaplains as spiritual care providers who assess spiritual needs of patients and implement plans of care that meet those needs in order to optimize spiritual well-being and its effect on patients' outcomes through lectures and seminars featuring nationally known speakers. Secondly, we want to increase the visibility of Clinical Center chaplains as spiritual care providers who assess spiritual needs of patients and implement plans of care that meet those needs to

optimize spiritual well being and its effect on patients' outcomes."

Patricia Fosarelli, M.D., D. Min., assistant professor of Pediatrics, Johns Hopkins University School of Medicine and professor of Spirituality and Practical Theology, Ecumenical Institute of Theology, St. Mary's Seminary and University, will present the keynote lecture on Monday, October 24, 3-4 p.m., in the Lipsett Amphitheater. A reception will follow. Fosarelli's work focuses on the impact of illness and grief in the spiritual development of children and adolescents.

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Editor: Tanya Brown Contributing Writers: Dianne Needham, John Iler, Colleen Henrichsen Clinical Center News, National Institutes of Health, 6100 Executive Blvd., Suite 3C01, Bethesda, MD 20892-7511. (301) 496-2563. Fax; (301) 402-2984. Published monthly for Clinical Center employees by the Office of Clinical Center Communications, Colleen Henrichsen, chief. News, article ideas, calender events, letters, and photographs are welcome.

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



Vaccine Research Center seek volunteers for vaccines studies

Thirty years after it was virtually eradicated, smallpox has made a comeback as a potential biological weapon. The threat is real, but even more serious is that fact that the majority of the U.S. population born after 1972, the year the smallpox vaccine was discontinued to the general public, is defenseless against the disease.

But there is something you can do to help.

The Vaccine Research Center's Clinic, located on 12 West in the Clinical Center, is swiftly attempting to provide solutions to emerging infectious diseases and for bio-defense with clinical trials aimed at making effective and safe vaccines for epidemics like HIV & AIDS, smallpox, Ebola, and West Nile Fever.

"Most people are nervous participating in a clinical trial for smallpox or HIV because they haven't been educated as to how the clinical trials work," said Margaret McCluskey, R.N., director of Nursing, Vaccine Research Center. "We want to assure them that they will not get smallpox or HIV by being in a study."

The Vaccine Research Center Clinic is part of the VRC, in Building 40. Last year, The clinic moved from the labs and administrative offices of Building 40 to the Clinical Center in order to conduct phase I, human safety trials. Dr. Gary Nabel is the director of the VRC and Dr. Barney Graham is chief of the Clinical Trials Core.

The one-of-a-kind Vaccine Research Center was established in 1999 by Dr. Anthony Fauci and former President Bill Clinton as part of an initiative to develop an effective, preventive AIDS vaccine. The unique venture between the VRC and the NIH intramural research program allows vaccines to be conceptualized, developed, manufactured and tested in one central location. Generally, vaccines take 3-5 years to get to the testing phase because several companies are hired to develop, manufacture and then test the vaccine. The VRC hopes to compress this timeline by at least half to respond to the urgent need to slow the HIV pandemic, and have our country better prepared for a potential release of a biological weapon.

Sadie Marie West, a post-baccalaureate Intramural Research Training Award fellow volunteered for the most recent HIV vaccine study because she wanted to be a part of a study that will help save lives. Because West is healthy, uninfected with HIV and willing to learn more about HIV vaccines, she was eligible to partner with the VRC as a trial participant.

"I was never afraid of joining the study because I know there are no risks and that the vaccine is safe," said West, a native of Laramie, Wyo. "Most people are



(Left to right) Michael Scott, R.N., Sadie Marie West and Colleen Thomas, R.N., M.S.N., show off one of the posters promoting study participation.

unaware the vaccine doesn't use the actual HIV virus, so why not participate and maybe help many people avoid HIV infection someday? I'm proud to be a part of it."

Currently, the clinic is recruiting volunteers for their smallpox and HIV vaccine studies. The smallpox trial, which uses two different groups of volunteer participants, needs individuals who have never been vaccinated and those who have been vaccinated before the vaccine was discontinued in 1972. The trial studies a special weakened, or attenuated, candidate vaccine designed to create immunity against smallpox with fewer side effects.

The smallpox study re-examines a new version of the vaccine known as Modified Vaccinia Virus Ankara, or MVA. In both trials, volunteers without heart conditions receive the FDA-licensed vaccine, Dryvax, after receiving the experimental vaccine. The goal is to arrive at an alternative to Dryvax, so that even the immunocompromised could safely be inoculated against smallpox.

If MVA is proven effective, it may be fast-tracked to become a licensed new vaccine for smallpox possibly within a year's time and could also play a role in the design of a preventive vaccine for HIV and other emerging infectious diseases, according to McCluskey.

"What's happening here is exciting," said McCluskey.
"We are indebted to our volunteers for their generous time commitment and their willingness to help us find vaccines to stop human suffering from these infections."

For more information about the Vaccine Research Center or how to volunteer, call 1-866-833-LIFE (5433) or email VRCforlife@mail.nih.gov. Visit the VRC website at www.vrc.nih.gov to review individual trials and Frequently Asked Questions.

—Tanya Brown

Ten Years of Life in Stem Cell Transplantation

research in allogeneic bone marrow and stem cell transplantation, NHLBI held a successful two-day celebration in September at the Clinical Center.

The first day of the conference was entitled, "Allogeneic Stem Cell Transplantation: A Decade of Progress." Speakers included John Barrett, M.D., chief, Stem Cell Allotransplantation Section Hematology Branch, NHLBI; Henry Masur, M.D., chief, Critical Care Medicine Department, Clinical Center; Rick Childs, M.D., senior clinical investigator, Hematology Branch, NHLBI; Elizabeth Read, M.D., chief, Cell Processing Section, Clinical Center; Rosemary Altemus, M.D., Radiation Oncology, Clinical Center; and Thomas Walsh, M.D., chief, Immunocompromised Host Section, NCI. Welcoming remarks were made by Claude Lenfant, M.D., retired director, NHLBI; Neal Young, M.D., chief, Hematology Branch, NHLBI; and Elizabeth Nabel, M.D., scientific director, clinical research, NHLBI.

After citing an array of achievements since the transplant unit grafted its first patient on Sept. 20, 1993, the speakers detailed major developments at the NIH supporting the success of the transplant procedure and outlined major improvements in the technique of allogeneic transplantation as a treatment for malignant blood diseases and solid tumors.

"As of this week, we will have transplanted just over 400 patients," Barrett noted. "We have strived to improve transplant outcome and apply what we have learned from each transplant protocol to the successive clinical study."

Some of the pioneering achievements, he said, include learning what the optimal stem cell dose is to obtain the best outcome and perfecting a technique of transplanting a donor's T-cell immune system, which minimizes graft-versus-host disease. "By reducing immunosuppression, we are able to enhance the unique graft-versus-malignancy effect of the donor immune system and extend the transplant approach...to successfully treat metastatic cancers such as renal cell cancer."

Additionally, research has minimized the traditionally intensive preparative treatment to include "low intensity" regimens. This, Barrett added, has allowed us to safely extend transplants to older and debilitated patients who, in the past, would not be considered safe candidates for conventional intensive regiment transplants.

But what of the future? "In the next 10 years, we hope to create a transplant with close to zero mortality and anti-malignant effects which will allow us to use the procedure as a targeted approach to treat a widening spectrum of malignant and non-malignant diseases without restriction of age, performance status or matched donor availability," Barrett predicted.

Transplant patients and donors

The second day was entitled, "Advances in the Practice in Stem Cell Transplantation; a Celebration of Life!" Clinical Center Director Dr. John Gallin introduced keynote speaker Dr. David Biro, a Brooklyn dermatologist and author of the book One Hundred Days: My Unexpected Journey from Doctor to Patient.

Also speaking that day on issues of transplant recovery was Dr. Jean Henslee-Downey. Prior to her appointment as director of the Blood Resources Program, NHLBI, she had a distinguished career as a bone marrow transplant physician. "She has always had a particular interest in quality of life issues for marrow transplant survivors," said Barrett. "Her descriptions of a number of studies presenting factors which impact on the quality of life was of special interest to our many transplant survivors and their families," he added.

A plaque was presented to the transplant team by one grateful patient, and to enthusiastic applause the first patient transplanted in 1993 was recognized followed by similar



(Left to right) Dr. Neal Young, Dr. Elizabeth Nabel, Dr. John Barrett, and Dr. Claude Lenfant.

100-day journey from doctor to patient

ven now, at the age of 39, Brooklyn dermatologist Dr. David Biro sees both doctors and patients in a ✓ different light. He's been both, and for 100 days in 1996, he underwent a harrowing, strange and engrossing odyssey.

In 1996, then 31, Biro was preparing for his subspecialty exams in dermatology and was planning to share a practice with his father when he suddenly became ill.

The first symptom struck during Grand Rounds eight years ago," he said in his keynote address at NHLBI's transplant program celebration last month. He was walking into the room of a patient when he felt the sensation of light in his right eye. His ophthalmologist thought it was thrombosis of the central retinal vein, but ordered a blood test to make sure.

"I received a call from the lab a few days later," he recounted. "Did I want to hear every result or just the abnormal ones?" To his dismay, the results were all abnormal. White count, hemoglobin and, he added, the most shocking of all, a platelet count of 40,000.

"My insides dropped, and for a second I could hardly breathe." He tried to continue his daily duties seeing patients but could barely concentrate or hold a syringe steady. "It was then I realized my entire world had changed—that it had taken a 180-degree turn. I was no longer a doctor! Just three months after completing my residency, I had metamorphosed into a patient. And not just any patient, but a zebra that would soon be the main



Dr. David Biro

attraction at medical conferences like this one."

The diagnosis was paroxysmal nocturnal hemoglobinuria (PNH), a clinical manifestation of red cell breakdown with release of hemoglobin into the urine. What Biro thought was a simple twist of fate he later determined was simply irony.

His book reflects his innermost thoughts as a patient: "I gaze into the mirror. The returning image is strange and unfamiliar. I pass my hand over the surface of my

See Biro, page 6

recognition for the patients, their donors and caregivers.

Later in the day, a quilt by Lauren Kingsland, a Gaithersburg artist, was unveiled in honor of the NHLBI transplant recipients during the past 10 years. Discussions and services followed with patients and family members addressing concerns following transplant and celebrate survivorship. Departments from throughout the Clinical Center, along with representatives of the Leukemia and Lymphoma Society, Aplastic Anemia and MDS International Foundation, Inc., and Lymphoma Research Foundation were in attendance.

"We could not have achieved our results without the help and support

"In the next 10 years, we hope to create a transplant with close to zero mortality and antimalignant effects which will allow us to use the procedure...without restriction of age, performance status, or matched donor availability."

from the Hematology Branch, NHLBI, and the entire Clinical Center—which can rightly feel part of our program," said Barrett. "This includes all the fellows who trained in our program, nurse practitioners and physician assistants, and the many colleagues in the nursing department, pharmacy, diagnostic services, intensive care, infectious diseases, gastroenterology, neurology, nutrition, physical therapy, recreational therapy, spiritual ministry, social work, and many others."

Symposium continued from page 1

Dr. Steven M. Paul, president of Lilly Research Laboratories, and Dr. Henry F. McFarland, director of the Clinical Neuroscience Program, NINDS will discuss clinical applications in neuroscience.

The afternoon session will begin with a discussion of the molecular basis of disease by Dr. W. French Anderson, director of Gene Therapy Laboratories, University of Southern California; Dr. Alan M. Spiegel, director, NIDDK; Dr. Elizabeth F. Neufeld, Department of Biological Chemistry; David Geffen School of Medicine, UCLA; and Dr. Francis S. Collins, Director, NHGRI.

The final session will cover infectious disease and will be presented by Dr. Harvey J. Alter, chief, Infectious Diseases Section, Department of

Transfusion Medicine, Clinical Center and Dr. Anthony S. Fauci, director, NIAID.

The program will open with remarks by NIH Director Dr. Elias A. Zerhouni, and will close with an overview of the future of clinical research by Clinical Center Director Dr. John Gallin.

This symposium is the opening event of the NIH Research Festival. It is free and open to the public.

The opening event of the Clinical Center's fiftieth anniversary celebration was a program and reception for current and past employees and patients on July 9. For more information on Clinical Center

fiftieth anniversary events, visit www.cc.nih.gov/50th.

Sign language interpretation will be provided. For all other reasonable accommodations please call 301-496-2563.

Physical Fitness Month

October is Physical Therapy
Month and the Physical Therapy
Section of the Rehabilitation
Medicine Department and the
Clinical Nutrition Service, Dietary
Services, is sponsoring a series of
events under this year's theme
"Exercise Your Options." Celebrate
the kickoff on October 10, from 8:309:30 a.m. on the 14th floor
auditorium where Amy Bastian, P.T.,
Ph.D., will speak on the topic
"Cerebellar Limb vs. Gait Ataxia: Are
the Mechanisms the Same?"

On Tuesday, October 21, on the first floor of the Clinical Center, individuals will be available to measure your body mass index (BMI). People with BMIs greater than or equal to 25 will qualify for a pedometer as incentive to begin an exercise program. All individuals will receive information on exercise, fitness and nutrition.

Biro continued from page 5

smooth hairless skull. The hollows of my temples have become cavities. My complexion has taken on a bluish hue. The contours and proportions of my features are distorted. Is it me? Looking so sickly?... Irony is not just a trope we encounter in literature; it gallops through life, snickering."

In 1990, Biro was pursuing a doctoral thesis in English literature. The topic he chose was the rhetoric of pain. What better way, he thought, than to weave together his interest in medicine and literature. Friends at graduate school, he said, were curious. Such a morbid topic, they assumed, must have sprung from an event in Biro's past. "No, I replied casually. In fact, I had breezed through life thus far with

no worse than a mild case of asthma."

1953 - 2003

But when PNH presented itself, Biro gained another perspective—bone marrow transplant, total body radiation, chemotherapy, and a severe mucositis that left him unable to speak. Two weeks vanished without a trace of memories and his parents provided him with a voice when he no longer possessed one of his own.

His 100-day journey, he believes, can be therapeutic and healing. It can help people understand what is happening to them and that even in the worst of cases irony and humor can be found. "The only way to respond," he said, "is to laugh. Not with a raucous and slapstick type of laughter, but the subtler, more internal variety. Laughing makes things more tolerable. It helps us endure."

While a patient, Biro also learned what a strong support system of family, doctors and friends can mean. He wondered if doctors really appreciate the role of a patient's support system in the healing process. "Do they take it into consideration when they advocate one treatment modality over another? Do they believe it can affect clinical outcomes? I certainly do. I can't imagine what it would be like to go through a bone marrow transplant alone."

Thanks to modern medicine and advances, Biro is able to share his experiences and treasure the time he spends with his family. "So you can imagine that I consider myself very fortunate to be here today...to celebrate with all of you at NIH. There is much to be thankful about."

—John Iler

Donors urgently sought by NIH Blood Bank

Blood donations plummet after 9/11, new regs

The September 11, 2001, tragedies were sudden, devastating and vivid. It was an act of war and a time of grieving national unity. One way of showing that unity was the unprecedented number of blood donors, many of whom stood in lines for hours waiting to give. Since then, however, blood donatons have dropped off and new regulations have barred certain people from donating.

These events have all worked together to negatively impact the Clinical Center's Department of Transfusion Medicine.

"We at [the Department of Health and Human Services] want to do what we can to help our fellow citizens in the Washington, D.C,. area and in New York City who are suffering and in need of medical aid," said Secretary Tommy Thompson. "I encourage all Americans to help out in this time of crisis and donate blood. No matter where you live, your blood donation can help those in need."

The 9/11 crisis motivated a flood of callers. More than 1,000 first-time blood donors contacted the NIH Blood Bank, as well as150 regular donors.

"Many were told that all acute needs for blood had been adequately met, both locally and nationwide," said Dr. Susan Leitman, acting director, Department of Transfusion Medicine. On September 11 and 12, the blood center processed 350 people. "We had 1,150 who left their phone numbers, a thousand of whom were new potential donors," Leitman explained.

Since then, the new regulations on who can give blood and hectic schedules of the donors themselves, have whittled down the number of donors and are playing a key part in creating serious blood shortages—a disturbing trend the blood bank hopes to reverse. In fact, Leitman added,

the need for O positive/O negative is reaching critical levels.

"The key statistic, the one that is causing our problems, is that only 38 percent of the 1,150 who left their phone numbers, ever actually gave blood after the disaster," said Bryce Onaran, donor resource coordinator. Of all the people who actually donated blood, he said, only 34 percent made a second visit to the blood bank within six months of the disaster.

"The point we want to statis make is that after that initial emotional response, the level of blood donation dropped off precipitously."

To combat the plummeting figures, the NIH Blood Donor Center is advertising in local community newspapers and is expanding its donor recruitment program. The Blood Donor Center is calling for a network of volunteers to help in the education and potential recruitment of all eligible employees.

"We are looking for enthusiastic volunteers to act as key recruiters within their institutes," said Onaran.

The donor resource representa-



(From left to right): Dr. Susan Leitman and Bryce Onaran chat with Roger P. Pickering, a survey statistician with NIAA. When he is able, Pickering donates blood every three months.

tives in the Blood Donor Center will collaborate with the key recruiters and provide educational materials and updates of new programs and eligibility requirements. Those interested in becoming key recruiters should contact the Blood Donor Center at (301) 496-1048.

For further information on who can give blood, either call the Blood Donor Center or visit www.cc.nih.gov/dtm/dtm_donor_info-important-info-concerning.htm.

-John Iler

Ministry continued from page 2

George Fitchett, D. Min., associate professor and the director of research for the Department of Religion, Health and Human Values, Rush-Presbyterian—St. Luke's Medical Center, Chicago, Ill., is an expert on spiritual assessment and spiritual screening. He will present research on religious struggle among medical patients and its impact on adjustment, recovery and mortality on Friday, October 24, from 9-10

a.m. in the Lipsett Amphitheater.

Other activities include a seminar on spiritual assessment for clinicians on Tuesday and an exhibit of drawings inspired by patients' stories of their experiences at the Clinical Center. The artist, Rev. Csaba Osvath, served as a chaplain intern at the Clinical Center this summer. Since 1995, he has studied art in creative ministry and has presented lectures and workshops worldwide.

For more information, call the Spiritual Ministry Department office at (301) 496-3407.

clinical center online

Google

Search Technology Chosen by NIH

rebsites are important information dissemination tools for NIH. With the size and complexity of the organization's web presence, finding information on both the main NIH and various Institute or Center sites is a challenge which means there is a need to employ the most effective search engine possible.

The current NIH search engine, Verity, was purchased about six years ago and is now seen as ineffective. Google is widely recognized in the information technology community as the best available search technology. The NIH web team and CIT assessed Verity, First Gov and Google in a controlled comparison test with the Google technology outperforming the other two.

NIH has since purchased two Google search appliances, a main one and a back-up. Each unit can index approximately a quarter million pages. The units are installed and test runs are complete. CIT is currently working on design and customization techniques and a plan to enable other organizations within NIH to 'piggy-back' on the service so Google may serve as their local search engine. A nominal fee will be charged by CIT for this service.

Google will offer users the best chance of succeeding when running a search query. To learn more about Google go to: www.google.com; for more information on the CIT plans for bringing this search technology to NIH, contact Ginny Vinton vaa@exchange.nih.gov.

Web Updates Joint Commission

With preparation for the December 2003 Joint Commission on the Accreditation of Healthcare Organization's survey visit, new and helpful information continues to be added to the JCAHO web pages. To view the latest updates go to: http://intranet.cc.nih.gov/od/jcaho/; for more information on the Clinical Center's JCAHO work, contact Laura Lee llee@cc.nih.gov.

Readers are encouraged to share ideas and items for Clinical Center Online. E-mail dneedham@cc.nih.gov.

-Dianne Needham

Medicine for the Public

October 21: When
Too Much Iron is Bad:
Hemochromatosis, the
Silent Blood Disease,
Susan Leitman, M.D.,



Acting Chief Transfusion Medicine, Clinical Center.

October 28: Complementary and Alternative Medicine: From Promises to Proof, Stephen Straus, M.D., Director, National Center for Complementary and Alternative Medicine

The Medicine for the Public lectures are free and open to the public. Learn more by visiting the website at www.cc.nih.gov/ccc/mfp/past/2003.html.

october

15 Grand Rounds
12-1 p.m.
NIH Research Festival
No Grand Rounds
No Wednesday Lecture

Grand Rounds
12-1 p.m.
Lipsett Amphitheater
Third Annual John Doppman
Memorial Lecture
The NIH Roadmap—Meeting
21st Century Research Needs

NIH Director Elias Zerhouni, M.D.

Wednesday Afternoon Lecture, 3 p.m. Masur Auditorium The DeWitt Stetten, Jr. Lecture: RNA- Triggered Genetic Silencing Mechanisms

Dr. Andrew Z. Fire, staff scientist, Department of Embryology, Carnegie Institution of Washington, Baltimore, Md.

29 Grand Rounds 12-1 p.m. Masur Auditorium 12-1 p.m.

> 50th Anniversary Celebration of Clinical Research Nephropathic Cystinosis: Changing the Course of a Disease? (William Gahl, M.D., Ph.D., clinical director, NHGRI)

Osteogenesis Imperfecta: Paradigm for a Dominant Disorder of Matrix (Joan Marini, M.D., Ph.D., chief, Bone and Extracellular Matrix Branch, NICHD)

Gene Therapy for Type 1 Glycogen Storage Disease (Janice Chou, Ph.D. chief, Section on Cellular Differentiation, Heritable Disorders Branch, NICHD)

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