

A New Powerhouse for Bench-to-Bedside Research

NIH selects WCMC to lead new Clinical and Translational Science Center

QUICKLY TURNING BREAKTHROUGHS IN THE LAB into interventions that help patients: That's the goal of a groundbreaking collaboration funded by the U.S. National Institutes of Health and led by Weill Cornell Medical College.

Created through a \$49 million Clinical and Translational Science Award—the largest federal grant Weill Cornell has ever received—the new Clinical



and Translational Science Center (CTSC) will be a multidisciplinary, multi-institutional network of prestigious research and clinical facilities scattered throughout New York City's Upper East Side.

Led by Weill Cornell Medical College and the Weill Cornell Graduate School of Medical Sciences, the Center also includes the Cornell University Cooperative Extension in New York City; NewYork-Presbyterian Hospital/Weill Cornell Medical Center; Memorial Sloan-Kettering Cancer Center; Hospital for Special Surgery; Hunter College School of Nursing; The Center for Study of Gene Structure and Function of Hunter College, The City University of New York; and six other Weill Cornell-linked hospitals.

The CTSC will forge new links between these premiere facilities to "fulfill the incredible promise of recent research advances in areas like genetics and bioinformatics and efficiently translate them into real-world interventions that benefit the community," explained Dr. David Skorton, president of Cornell University and professor of >>> **page 4**

On the Trail of "The Silent Killer"

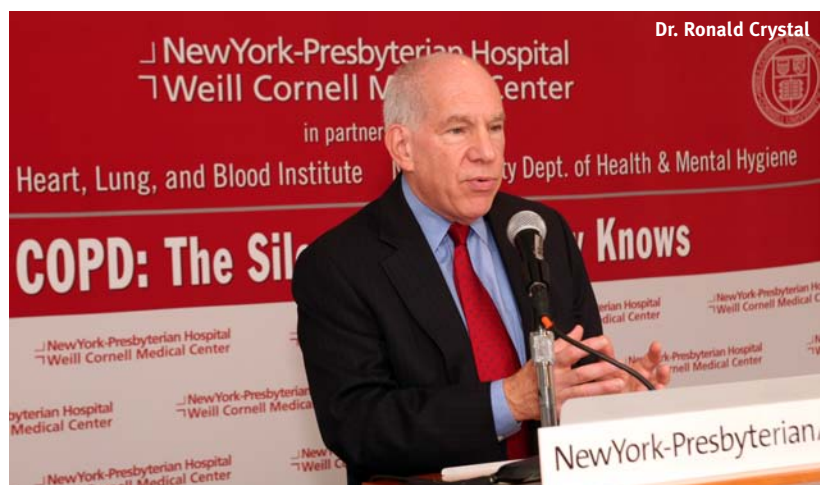
WCMC leads effort to inform public about COPD

Chronic Obstructive Pulmonary Disease (COPD) is hardly a household name. But experts say that by the year 2020, the respiratory illness will rank behind heart disease and cancer as the third leading cause of death in the United States.

In hopes of raising awareness for COPD—which may affect as many as 24 million Americans—NewYork-Presbyterian Hospital/Weill Cornell Medical Center, in partnership with the National Heart, Lung and Blood Institute (NHLBI) and the New York City Department of Health and Mental Hygiene, held a press event on Oct. 10 to detail epidemiology of a disease often referred to as "The Silent Killer."

Dr. Antonio M. Gotto Jr., dean of Weill Cornell Medical College, and

Dr. Andrew Schafer, chairman of the Department of Medicine at the Medical College and physician-in-chief at NewYork-Presbyterian/Weill Cornell, welcomed reporters to the press briefing held in the Weill Greenberg Center. Dr. Ronald Crystal, chairman of the Department of Genetic Medicine at the Medical College and chief of the Division of Pulmonary and Critical Care Medicine at NewYork-Presbyterian/Weill Cornell, hosted the event and discussed possible genetic determinants of COPD. Dr. James Kiley, director of the Lung Diseases Division of the NHLBI, was on hand to present an overview of the disease, as was Dr. Patricia Cassano, an associate professor of nutritional epidemiology at Cornell University in Ithaca. >>> **page 4**



Tiny Particles Are a Big Weapon Against Prostate Cancer

Weill Cornell scientist joins nanotechnology research effort

Nanotechnology particles the size of atoms or molecules may be very small, but they could deliver huge rewards in the fight against prostate cancer.

That's the hope of researchers like Weill Cornell's Dr. Neil Bander, one of a select group of U.S. researchers involved in a new project investigating the potential of nanotechnology against metastatic prostate cancer, which currently has no cure.

"Nanotechnology has the potential to deliver highly targeted chemotherapy to cancer cells without harming healthy cells, something that's often tough to do with the technologies we have now," explained Dr. Bander, director of the Laboratory of Urologic Oncology at Weill Cornell Medical College and an attending urologist at NewYork-Presbyterian Hospital/Weill Cornell Medical Center.

"That level of precision might enable us to safely use drugs that might otherwise be too toxic, or would dissolve away too quickly in the bloodstream," he added.

The effort is being organized by the Prostate Cancer Foundation and is funded by a \$5 million grant from philanthropist and prostate cancer survivor David Koch.

Dr. Bander will collaborate on the nanotechnology initiative with scientists at the Massachusetts Institute of Technology, the Dana-Farber Cancer Institute and Brigham and Women's Hospital in Boston.

About one in every six American men can expect to develop prostate cancer during his lifetime. According to the American Cancer Society, over 200,000 men will be diagnosed with the illness in 2007 and more than 25,000 men will die from metastatic disease. If caught early, prostate cancer is highly curable but outcomes are much less favorable once the tumor has spread. ■



Dr. Neil Bander

"Nanotechnology has the potential to deliver highly targeted chemotherapy to cancer cells without harming healthy cells, something that's often tough to do with the technologies we have now."

—Dr. Neil Bander

the Scope Weill Cornell

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Giving Lifesaving Clinical Trials a Boost

New program seeks way to increase patient participation

Patients who agree to take part in clinical trials are the unsung heroes of medical research, but right now, just a small percentage ever do so.

Finding out why that is so—and looking for ways to change it—is the focus of a unique collaborative study between Weill Cornell Medical College and the Cornell University College of Agriculture and Life Sciences in Ithaca.

"Low patient accrual in clinical trials poses a serious problem for the advancement of medical science," notes

Dr. John Leonard, a professor of medicine at Weill Cornell Medical College and co-leader of the new Improving Methods for Patient Accrual to Clinical Trials (IMPACT) program.

"Less than 2 percent of U.S. patients choose to participate in clinical trials for cancer therapies, for example, and delays in recruitment can really slow the delivery of new therapies to patients," said Dr. Leonard, who is also an attending physician at NewYork-Presbyterian Hospital/Weill Cornell Medical Center.

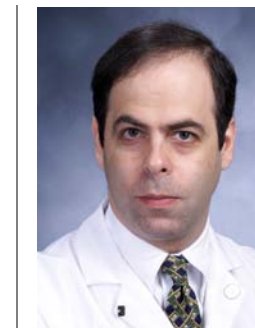
"Even a modest in-

crease of 2 to 3 percentage points could mean the difference between completing a study in two years instead of three—and that could potentially mean thousands of lives saved through improved care," he said.

To that end, IMPACT investigators will collaborate with The Leukemia & Lymphoma Society—which has helped fund the first phase of the project—to survey Americans on their attitudes toward joining clinical trials. That finding will also support a doctoral student from the Communications



Dr. John Leonard



Dr. Andrew Dannenberg

Department at Cornell whose work will focus on this area of research.

Prior study has already suggested that many patients balk at entering a clinical trial because they fear potential treatment side effects or the randomization process. Many may have a distrust of doctors or researchers, or they face time or other logistical constraints. On

the other hand, patients may opt to participate because they hope the experimental treatment will be better than the current standard of care, or they have a desire to further medical research and help others.

IMPACT is just one of many recent efforts by

Weill Cornell to boost clinical research programs, including the newly launched Institute for Clinical Research.

"Our aim is to provide data-supported recommendations for strategies to improve the accrual of patients in clinical trials," said Dr. Andrew Dannenberg, also a co-leader of the IMPACT study, a professor of medicine at Weill Cornell and an attending physician at NewYork-Presbyterian Hospital/Weill Cornell Medical Center.

"Future phases of the study will develop tools to better inform patients, educate patients as to the pros and cons of enrollment, and create strategies that facilitate participation," he added. "The end goal: to more quickly design, evaluate and deliver new interventions against a wide range of disorders." ■



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On the Trail of “The Silent Killer”

Jacqueline Fox-Pascal, deputy director of the New York City Asthma Initiative at the New York City Department of Health and Mental Hygiene, also spoke at the briefing.

COPD, the umbrella term for chronic bronchitis, emphysema, and a range of other lung disorders, is a serious lung disease that restricts airways and destroys the elasticity of the lungs, making

breathing difficult. Like many pulmonary diseases, smokers are especially susceptible to COPD, accounting for about 85 percent of COPD cases. Exposure to noxious particles and fumes make up the other 15 percent. Genetic factors also play an important role.

Earlier this year, the NHLBI awarded Weill Cornell a \$14 million grant to fund genetic research in COPD. While biomarkers like elevated cholesterol levels aid in the early detection of heart disease, lung disease has no such indicators. Therefore, the identification of specific genes responsible for susceptibility and resistance to COPD will lead to improved prevention and treatment.

COPD seems to strike women at an increasing rate, which may be due to an alarming trend of women taking up smoking later in life. Cigarette smoke also appears to have a more severe effect on women’s lungs, said Dr. Cassano, who focuses on the disease’s alarming epidemiology.

People with the earliest symptoms of COPD often ignore the warning signs, such as shortness of breath and excessive coughing, attributing the symptoms to advancing age, exertion, etc. This allows the disease to progress unabated. But a simple breathing test, known as spirometry, can quickly and easily gauge a patient’s lung function and indicate any early signs of COPD.

“This ought to be part of your regular screenings,” Dr. Crystal said. “It is just as important as checking your cholesterol and blood pressure.” ■



Jacqueline Fox-Pascal, deputy director of the New York City Asthma Initiative, NYC DOH, demonstrates the simple procedure used to test for reduced lung function.

RICHARD LOBEL

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A New Powerhouse for Bench-to-Bedside Research

medicine and medicine in pediatrics at Weill Cornell Medical College.

“We are honored to be selected as the lead institution for this new biomedical complex, and the new Biomedical Research Building at Weill Cornell—already under development—will be the hub of this effort,” added Dr. Antonio M Gotto Jr., dean of Weill Cornell Medical College.

A key aim of the CTSC, according to Dr. Gotto, will be to train “a new generation of world-class researchers—scientists who are adept at speeding lab-based discoveries into the kinds of clinical trials that may improve patient care.”

That kind of momentum can only come from the kind of collaboration of private

and public resources that the CTSC represents, according to Dr. Julianne Imperato-McGinley, the Center’s principal investigator and program director.

“The CTSC will work toward moving translational research from bench to bedside and then into the community,” said Dr. Imperato-McGinley, who has also been appointed associate dean for educational training and translational research at Weill Cornell.

“Furthermore, lessons learned in the local community—with which we plan to form extensive outreach—will form the basis of new research efforts,” she added. Ethnically diverse and medically underserved populations, in particular, will be major players in the CTSC initiative, build-

ing on existing partnerships between community organizations and the Cornell University Cooperative Extension.

A list of clinical areas to be focused on includes cancer, diabetes, AIDS, heart disease, women’s health, reproductive medicine, geriatrics, psychiatry, Alzheimer’s disease, kidney disease, obesity, multiple sclerosis, neuromuscular disorders, trauma and burns.

“This is the largest federal grant ever awarded to the Medical College and it’s truly an honor to lead this new biomedical complex,” noted Dr. David Hajjar, dean of the Weill Cornell Graduate School of Medicine. “Going forward, we’ll work closely with our partner institutions, helping to turn basic science into real breakthroughs for patients.” ■

The Passing of a Good Friend

DR. G. TOM SHIRES, A PIONEERING

surgical leader who helped establish one of the nation’s largest burn centers, passed away October 18, 2007, at the age of 81.

Dr. Shires served as dean of Weill Cornell Medical College and provost for medical affairs at Cornell University from 1987 to 1991. He also served as the Lewis Atterbury Stimson Professor and chairman of surgery at Cornell University Medical College (now Weill Cornell Medical College) and surgeon-in-chief at The New York Hospital (now NewYork-Presbyterian Hospital/Weill Cornell Medical Center).

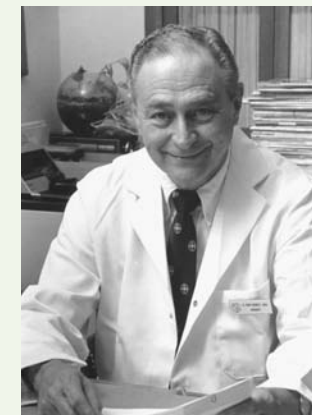
“We are deeply saddened at the passing of our good friend and colleague Dr. Tom Shires,” said Dr. Antonio M. Gotto Jr., dean of the Medical College. “He was a brilliant physician and researcher whose extraordinary contributions to medicine and education will stand as a timeless legacy to his distinguished career.”

In 1976, Dr. Shires helped establish Weill Cornell’s William Randolph Hearst Burn Center, the first full-service burn center in the New York area and now one of the nation’s largest. The center has treated more than 30,000 patients, including several victims of the Sept. 11th terrorist attacks.

It was Dr. Shires’ research into cellular physiology of shock that led to the recognition that trauma and surgical patients needed to be given intravenous salt-water solution, a practice that is still followed today. He also played a key role in organizing Emergency Medical Services (EMS) in New York City and launching the state’s first helicopter ambulance service.

During his illustrious career, Dr. Shires led various professional organizations, including the International Surgical Society, American Board of Surgery, American College of Surgeons and the American Surgical Association.

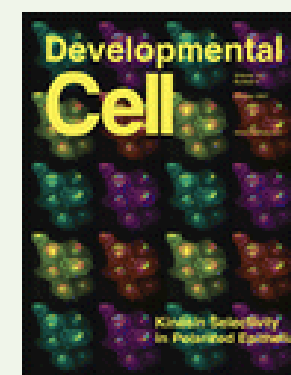
Dr. Shires’ place in history was cemented in 1963 when he performed successful emergency surgery on Governor of Texas John Connally, who was wounded in the assassination of President Kennedy in Dallas. ■



Cellular Trafficking Discovery Could Yield Better Drugs

WHEN EPITHELIAL CELLS SELECT ONE

of a large family of proteins called kinesins to help with intracellular trafficking, that choice helps determine health or dysfunction within the cell, a team led by Weill Cornell cellular biologist Dr. Geri Kreitzer reported on the cover of *Developmental Cell* in October. The finding could prove to be a big breakthrough in drug research because pharmaceuticals that target a specific kinesin might “fix” wayward behaviors within the cell while leaving healthy processes alone. ■



because pharmaceuticals that target a specific kinesin might “fix” wayward behaviors within the cell while leaving healthy processes alone. ■

Smaller Breast Reductions Bring Real Health Benefits

A STUDY OF 59 WOMEN COULD HELP BREAK

down a longstanding policy by the insurance industry, which typically does not reimburse patients for breast reductions involving the removal of less than 500 grams of tissue per breast. Co-authored by Weill Cornell assistant professor of surgery Dr. Jason Spector, the study found that smaller-framed women had less neck, back and other pain after their procedures, as well as greatly improved quality of life. The findings were published in September in *Plastic and Reconstructive Surgery*. ■



Dr. Jason Spector

First Steps to Cracking the Brain’s “Neural Code”



IT’S LITERALLY LIKE

reading the mind: a team of Weill Cornell neuroscientists have made the first bold steps toward deciphering the complex electrical patterns the

brain uses to organize itself — the so-called “neural code.” “Accurately interpreting the brain’s activity will be one of the great accomplishments in science,” said lead researcher Dr. Daniel Butts. Reporting in September in *Nature*, his group identified key timing sequences that are crucial to interpreting how the code works. ■

Nicotine Key to Assault on Arteries

NICOTINE SETS SMOKERS UP FOR ADDICTION,

but it may also speed the destruction of their arteries according to a study published in *Cardiovascular Toxicology*. “We found that mice exposed to smoke from high-nicotine cigarettes had more rapid atherosclerosis than mice subjected to low-nicotine brands such as Quest 3 and Eclipse,” said study lead researcher and Weill Cornell associate research professor of physiology Dr. Daniel Catanzaro. He suspects that nicotine blocks the production of nitric oxide, which otherwise works to keep vessels healthy. ■

A Gift That Truly Keeps on Giving

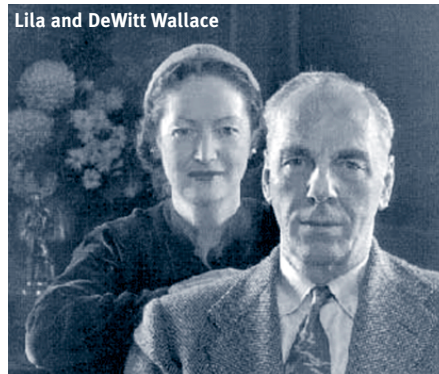
A publishing legacy leads to a new psychiatry endowment

DeWitt and Lila Wallace, founders of The Reader's Digest Association, were truly philanthropists at heart, and their legacy of giving continues to benefit people a quarter century after their passing.

Married in 1921, Lila and DeWitt published the first edition of "Reader's Digest" in 1922. From an initial circulation of just 5,000, the "little magazine" caught on and over time became the foundation of a worldwide publishing enterprise.

Once their livelihood was secured, the Wallaces turned their attention to another love—helping people. Through a fund they established at The New York Community Trust in 1984, the Wallaces underwrote The Reader's Digest Fellowship Program at NewYork-Presbyterian/Weill Cornell Medical Center. Previous gifts totaling more than \$30 million from the Fund were paid out annually to support the Oskar Diethelm Library of the Institute

for the History of Psychiatry, the Functional Neuroimaging Lab, the Sackler Institute for Developmental Psychiatry in



addition to a wide variety of projects in developmental neurobiology; geriatric psychiatry; eating, depression and anxiety disorders; schizophrenia; and other areas of psychiatric research and practice.

The final \$70 million payment of this endowment by The New York Community

Trust makes it one of the largest private gifts ever for psychiatric research and practice in the United States. Moving forward, the gift creates an endowment which will fund fellows, instructors, assistant professors and the continued development of senior scholars.

NewYork-Presbyterian/Weill Cornell Medical Center is already home to one of the nation's most highly regarded psychiatric programs, due in large measure to the work of Dr. Jack Barchas, the Barklie McKee Henry Professor and Chairman of the Department of Psychology, who was awarded the 2006 Sarnat Prize in Mental Health from the Institute of Medicine of the National Academies. In addition, Drs. Beatrix and David Hamburg were awarded the same prize in 2007.

"By helping to train the next generation of psychiatrists, this extraordinary gift will contribute invaluable to clinical scholarship and education in psychiatry," said Dr. Antonio Gotto Jr., dean of Weill Cornell. ■

studentnews

Not to Worry, Weill Cornell Has Your Back

New Hippocratic Oath T-shirt a hot seller in WCMC bookstore

ADELINO GUIMARAES HAS worked at the Weill Cornell Medical College bookstore in some capacity since 1986, and in that time he has seen the school's logo stamped on just about anything that would hold ink. Now working as the store's manager, Guimaraes has made efforts to accommodate the changing tastes of today's students.

The latest addition—

created in conjunction with Dean Gotto and Dr. Joseph Fins, chief of the Division of Medical Ethics—bears the Weill Cornell Medical College logo on the front of the shirt and the words of the recently-revised Hippocratic Oath on the back. Thanks to Dr. Fins, all proceeds from the sale of the T-shirts will go to the student financial aid fund.

"It's a way of putting the oath's words into deeds,"

Dr. Fins said.

Guimaraes estimated that the bookstore has sold about 150 shirts, priced at \$17.98, since they first went on sale in mid-September.

"Our campus in Qatar ordered quite a few," he said.

This was not Guimaraes' first T-shirt epiphany. About nine months ago, he came up with a shirt that read "Be Nice To Me. I Could Be Your Doctor Someday." ■



ANDRIA LAM

It's Not About Willpower: It's a Disease

Empathy—not accusations—suggested as the proper approach to an obese patient

"Obesity is a disease," said Dr. Louis Aronne, professor of medicine at Weill Cornell Medical College and director of the Comprehensive Weight Control Program at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. "It has a pathology and a pathophysiology and if the medical community is to slow the advancing health crisis associated with excessive weight gain, then obesity must be viewed and treated as a disease."

Dr. Aronne spoke to a gathered audience of physicians and students at the Oct. 18th Medicine Grand Rounds regarding the obesity epidemic and the methods physicians should employ when treating patients who suffer from obesity and related diseases, such as type 2 diabetes. The talk, entitled "Lose Weight, Live Longer: A New Mandate for Treating Obesity," stressed that both obesity and diabetes have increased dramatically in the United States since 1990, and that weight gain can contribute to the onset of other diseases, such as cancer.

To help curb that trend, Dr. Aronne advised that doctors, when possible, prescribe drugs that do not include weight gain as a possible side effect, as well as work to understand the frustrations of obese patients.

"The proper approach to the patient is an empathetic and non-judgmental one," he said. "You are not prosecuting the patient for the crime of being obese."

The good news, Dr. Aronne said, is that even a little bit of weight loss can greatly improve one's health, and that there are about 100 medications now in development that will be able to aid in that loss. Obese patients, however,

must still alter their perception of healthy weight loss and reaching their target weight.

"The goal is 5 to 10 percent weight loss," Dr. Aronne said. "It shouldn't be 'I want to be able to fit into my old Army uniform from the Korean War' or 'I want to fit into that dress in the window.' That's not the way to approach this." ■

"The proper approach to the patient is an empathetic and non-judgmental one. You are not prosecuting the patient for the crime of being obese."

—Dr. Louis Aronne



Dr. Andre Panagos Named First Clinical Scholar in Rehabilitation Medicine



DR. ANDRE PANAGOS, assistant professor of rehabilitation medicine, has been named the first holder of the Willibald Nagler Clinical Scholar in Rehabilitation Medicine. Clinical Scholar Awards are

bestowed upon junior faculty who have demonstrated outstanding clinical care and whose research shows significant promise.

Dr. Panagos joined Weill Cornell Medical College in 2004 as an assistant professor. Since that time he has developed a notable clinical program in spine and musculoskeletal medicine. He is active in several national committees, including the American Academy of Physical Medicine and Rehabilitation, and serves on a clinical guidelines committee of the North American Spine Society. The Nagler Clinical Scholar Award will support Dr. Panagos' research into clinical uses of diagnostic ultrasound during knee injection procedures.

Dr. Daniel Knowles Receives 2007 Philip Levine Award



DR. DANIEL KNOWLES, the David D. Thompson Professor and chairman of the Department of Pathology and Laboratory Medicine and chief medical officer of the Weill Cornell Physician Organization, received

the 2007 Philip Levine Award for Outstanding Research at the American Society for Clinical Pathology Annual Meeting in New Orleans on Oct. 20. Dr. Knowles is particularly known for his original contributions concerning the immunopathologic and molecular pathologic characterization of malignant lymphoproliferative disorders, especially those associated with immune deficiency. ■

the ^{Weill Cornell} **Scope** at a glance

November • December 2007



*With gratitude for being a part of our mission of excellence.
Best wishes for the New Year.*

Antonio M. Gotto

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