Drive Begun to Foster Advances In Cardiovascular Research

GOAL OF CARDIOVASCULAR RESEARCH INITIATIVE IS TO SUPPORT BASIC AND TRANSLATIONAL RESEARCH, BOOST COLLABORATIONS

Columbia University Medical Center is already renowned nationwide for its excellence in cardiovascular research, especially in the areas of atherosclerosis, arrhythmia, and heart failure. Now, in an effort to support growth and expansion in cardiac research, the College of Physicians and Surgeons has launched the Cardiovascular Research Initiative (CVRI).

The CVRI is intended to enhance existing programs and strengthen capabilities in cardiovascular genetics, vascular biology, and developmental biology, according to director Alan Tall, MD, Tilden-Weger-Bieler Professor of Medicine and professor of physiology and cellular biophysics, and vice director Robert Kass, PhD, Hosack Professor of Pharmacology, vice dean for research and chairman of the Department of Pharmacology. The CVRI serves as an umbrella for all basic and translational research in cardiology at the medical center and also is intended to help in the retention of faculty and recruitment of promising new faculty.

“Our objective is for the CVRI to be both an intellectual home – where seminars by leaders in the field of cardiovascular medicine will regularly take place – as well as a physical home, where our researchers will be supported by first-rate facilities and be able to freely interact and collaborate,” Dr. Tall says.

In keeping with its mission to foster interdisciplinary collaborations, the CVRI has 35 members drawn from...
Dear Colleagues and Students,

For all the institutions of medicine, researchers who make discoveries that shed light on basic principles, those who hope to cure disease and the imaging of the heart and blood vessels to gain a better understanding of disease processes.

The priorities of the initiative include funding existing research programs and developing new programs; establishing an optimal physical location for our cardiac researchers, to enhance their ability to collaborate with colleagues; recruiting talented researchers at the assistant and associate professor levels; and supporting a high-profile seminar series for distinguished speakers, who will be designated as Wu Visiting Professors.

The Cardiovascular Research Initiative will be strengthened by its relationship with the Vivian and Seymour Milstein Family Heart Center now under construction. This collaboration will promote greater integration of research and clinical medicine in cardiac care. Columbia physicians are renowned for cardiac patient care; with our hospital partner, NewYork-Presbyterian, our doctors treat some of the most advanced, comprehensive care.

Under the outstanding leadership of Alan Tall and Robert Kass, the Cardiovascular Research Initiative will propel CUMC into the very highest leadership position in cardiovascular research. Heart patients everywhere will ultimately benefit from the innovations that will emerge from our laboratories and clinical trials.

Inaugural Kavli Prize Awarded to Pioneering Columbia Scientist

Thomas Jessell, PhD, the Clare Tow Professor of Neuroscience and Biochemistry & Molecular Biophysics at the Center for Neurobiology and Behavior at CUMC and a Howard Hughes Medical Institute investigator, is one of three inaugural recipients of the 2008 Kavli Prize in Neuroscience. The award was given for discoveries related to the developmental and functional logic of neuronal circuits. Dr. Jessell has worked for more than two decades on understanding how nerve cells in the developing spinal cord assemble into the circuits that control sensory perception and movement. He pioneered the molecular analysis of neural circuit assembly in the vertebrate central nervous system.

The Kavli prizes are a partnership between the Norwegian Academy of Science and Letters, the Kavli Foundation and the Norwegian Ministry of Education and Research. The Kavli Prize is named for and funded by Fred Kavli, the Norwegian-born entrepreneur and philanthropist. The prize was announced as part of the opening of the first World Science Festival in late May in New York City.

InVivo is published by the Department of Communications. InVivo covers the latest advances and news at Columbia University Medical Center.

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CONTINUING MEDICAL EDUCATION

Children’s Hospital to Host Major Conference for Pediatricians

On Nov. 8 and 9, 2008, Morgan Stanley Children’s Hospital of New York-Presbyterian and the College of Physicians and Surgeons will host Innovations in Pediatric Medicine, a national continuing medical education conference for pediatricians, pediatric surgeons, pediatric sub-specialists, pediatric nurses, and perinatologists. The conference, which will coincide with the 60th anniversary of the founding of the Morgan Stanley Children’s Hospital of New York-Presbyterian, will cover the role of genetics in childhood medical disorders, the future of stem cell therapeutics in children, the role of medical and surgical advances in common childhood diseases. The conference will be held at the Grand Hyatt Hotel in New York.

Registration and more information at: www.childrens.org/cme

STAYING UP-TO-DATE

The Department of Communications produces a daily e-report of media coverage, highlighting coverage of CUMC faculty and the day’s top health news. To sign up for the “Daily Media Report” please send an email to cumcnews@columbia.edu with your full name and email address.

To receive regular issues of InVivo and P&S Journal, faculty and staff should update their addresses through myColumbia or the online directory, which is accessed through Columbia University Human Resources.

Lee Goldman, EVP JOURNAL

HONOR

Inaugural Kavli Prize Awarded to Pioneering Columbia Scientist

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A new project spearheaded by Kavita Ahluwalia, DDS, MPH, assistant professor of dental medicine in the College of Dental Medicine, will study the oral health of people with dementia in long-term care facilities. In conjunction with the Isabella Geriatric Center, Dr. Ahluwalia has been awarded $415,000 over three years by the New York State Department of Health for the project, which address-es an area of geriatric health care that is often ignored.

“There are a few fellowships in geri-atric dentistry but the field is not a well recognized dental specialty and few dentists have the training needed to care for this population,” Dr. Ahluwalia says.

Little is known about the state of den-tal health of people with dementia in long-term care facilities. “We do know that the state of oral health in long-term care facilities is pretty bad,” she says. “People usually are in nursing homes because they are in poor mental or physical shape, or both. They often cannot take care of their own teeth, and nursing home staff are often not trained to care for their patients’ mouths.”

While Medicare and state nursing home licensure requirements mandate an oral exam when someone is admitted to a care facility, these requirements are often left open to interpretation. Exams are frequently conducted by nurses not trained in oral health, Dr. Ahluwalia says.

Caring for the oral health of people with dementia presents unique chal-lenges. Aggression, agitation, and confusion can make it difficult for caregivers to get near the mouth even to feed a resident, much less brush teeth or care for dentures. “In the dental chair, getting someone with dementia to even keep his or her mouth open can be challenging; if the person clumps down while a drill is running, there can be a severe injury to the patient,” she says.

With the new project, Dr. Ahluwalia and her colleague, Gregory Bunza, DDS, assistant professor of clinical dental medicine, will study the oral health sta-tus of nursing home residents with dementia and the issues and challenges involved in providing daily care. They will next develop a training curriculum to teach daily caregivers – primarily nurses and nursing assistants – about providing oral health care to people with dementia and test the curriculum’s effectiveness and feasibility of imple-mentation.

After a pilot project among some 70-80 residents in the dementia unit of the Kateri Residence, a skilled care facility in Northern Manhattan, Dr. Ahluwalia and Dr. Bunza will test the curriculum at the Isabella Geriatric Center, also in Northern Manhattan. The larger popu-lation there will allow for an interven-tion group and a control group of about 100 subjects each.

“We’re hoping that one of the things that will emerge from this intervention is better quality of life for these people, so we will also be looking at measures such as eating and socialization,” says Dr. Ahluwalia. “When people have dementia, they often can’t report things like, ‘My mouth hurts.’ But if patients’ mouths are cleaner, if their nurses are trained to spot trouble early and get them to the dentist, maybe they will be more comfortable, find it easier to eat, and generally feel better.”

Gina Shaw
Hundreds Graduate from Columbia University Medical Center Schools

For the first time, commencement was held at the New Balance Track & Field Arena at the Armory on 168th Street and Fort Washington Avenue. The College of Physicians & Surgeons, the Mailman School of Public Health and the School of Nursing held their ceremonies on May 21; the College of Dental Medicine commencement took place on May 22. To view graduation photos and videos visit www.cumc.columbia.edu/graduation_2008.

COLLEGE OF DENTAL MEDICINE

- Number of graduates: 76
- Women: 46 percent
- Men: 54 percent
- Underrepresented minorities in dentistry: 10 percent
- One dual degree recipient: DDS/MPH
- 95 percent of CDM graduates are going on for postgraduate training (one in three dental graduates nationwide pursue postgraduate training)
- Extracurricular activities: Give Kids a Smile; Community DentCare; ElderSmile; oral health outreach sessions in community schools; volunteering at free clinic providing health care for the homeless

SCHOOL OF NURSING

Number of graduates:
- Bachelor’s in Nursing (RN-Entry to Practice): 177
  - Women: 90 percent
  - Men: 10 percent
- Master’s in Nursing (Feb’08 and May ’08): 167
  - Women: 94 percent
  - Men: 4 percent
MAILMAN SCHOOL OF PUBLIC HEALTH

- Number of graduates (Oct ’07, Feb’08 and May’08): 405
- Women: 77 percent
- Men: 23 percent
- Underrepresented minorities in public health: 18 percent
- Countries represented: 35
- Dual degree recipients: 34 (Medicine; Nursing; Business; International Affairs; Occupational Therapy; Social Work; Urban Planning)
- Students participating in summer overseas programs: 100 (in about 40 countries)
- Where graduates take jobs: public health agencies; academic/research institutions; other non-profits; for-profits; consulting firms
- Extracurricular activities: Students worked with more than 200 domestic organizations, such as NYC Department of Health and Mental Hygiene; Planned Parenthood; Children’s Defense Fund; Memorial Sloan-Kettering Cancer Center

COLLEGE OF PHYSICIANS & SURGEONS

- Number of graduates: 134
- Women: 43 percent
- Men: 57 percent
- Underrepresented minorities in medicine: 22 percent
- Dual degree recipients: 3 MD/PhD; 7 MD/MPH; 2 MD/MBA; 2 MD/DDS
- Students taking extra research year: 26 percent
- Students who did not go into residency and are pursuing business, health care policy work or deferring residency for a year: 7
- 30 percent matched at Columbia for part or all postgraduate training
- 44 percent will remain in New York State, mostly in New York City
- Number of children born during medical school: 6
- Extracurricular activities: CoSMO (student-run free Washington Heights clinic); Bard Hall Players; P&S Club; clinical teaching of fellow students; local and global health programs
Chickenpox Booster Needed Years Earlier

One out of every four children inoculated with a single dose of the chickenpox vaccine may not develop immunity, according to a new study by CUMIC infectious disease researchers. The results indicate that a second booster shot is needed months later, not years, as is currently recommended.

Since its approval by the FDA in 1985, the chickenpox vaccine has dramatically decreased the number of chickenpox cases, hospitalizations, and pediatric deaths. Still, outbreaks of chickenpox periodically flare up in schools and daycare centers even among vaccinated children. In response, the CDC in 2006 recommended all children receive a second dose of the vaccine between age 4 and 6.

It’s important that a second dose be given routinely, says Anne Gershon, MD, professor of pediatrics – infectious disease, but the timing is too late. “The timing of the second shot assumes that more than 95 percent of children develop immunity after the first dose, but that immunity slowly wanes over years. We’ve found that for many children that immunity never existed.”

In the study, 148 1-year-olds were vaccinated with a single dose of the chickenpox vaccine. Four months later, all the children had no detectable antibodies to the virus, leaving them vulnerable to the disease. The failure of the first dose is much higher than the <5 percent figure reported in the vaccine’s pre-licensure studies. Dr. Gershon attributes the discrepancy to the tests used to measure antibodies. The current study used the FAMA test, developed years ago in Dr. Gershon’s lab. This assay is considered the gold standard in measuring chickenpox antibodies, but it cannot be automated. Most other studies use a less laborious, and less accurate, ELISA test.

About 4 million children are vaccinated against chickenpox each year. “If one-quarter are unprotected and we wait five years before giving a second dose, that leaves us with 5 million vaccinated, but vulnerable, children,” Dr. Gershon says. “Not only will this continue to produce outbreaks, but it may also cause an epidemic of serious disease in unprotected adults.”

Journal of Infectious Disease (2008) 197: 944-949. Research supported by the NIH.

Gastric Bypass Impacts Type 2 Diabetes

A new study shows that gastric bypass surgery itself – and not the weight loss it causes – alters activity of a hormone that may help explain why the operation cures diabetes.

Almost immediately after gastric bypass surgery, about 80 percent of diabetic patients can discard their diabetes drugs and stop insulin injections.

Many researchers suspect that the effect of gastric bypass surgery on diabetes works by increasing the secretion of the hormone incretin, which is released by the gut after a meal and helps stimulate the release of insulin. Incretin release in patients with type 2 diabetes is sluggish but bounces back to normal after gastric bypass surgery. Since weight loss may also improve hormone release, however, it is unclear if changes in incretin hormones are due to the sudden weight loss after surgery or surgery itself.

To find out, Blandine Laferrère, MD, assistant professor of medicine at St. Luke’s-Roosevelt, and her colleagues at the Obesity Research Center compared 10 gastric bypass diabetic patients with 10 similar subjects who rapidly lost the same amount of weight through dieting. “Surgery increased the levels of the incretins that improve diabetes, and we did not see that after dieting,” Dr. Laferrère says. Surgery raised both the level of incretins and their ability to stimulate insulin release, while diet had no effect on either. Glucose levels did improve in both groups, but the improvement was far greater among the surgical patients. None of the surgical patients needed diabetes drugs after surgery, compared with 80 percent of the dieters.

Should everyone get gastric bypass? “I don’t think so,” Dr. Laferrère says. “We don’t have good data on hormone levels 10 years down the road. We need more research to see what is going on, which may also lead to alternatives that increase incretins without surgery.”

J Clin Endocrinol Metab, published online Apr 22 ahead of print

The work was funded by the American Diabetes Association, NIH, and the Merck Investigator Initiated Studies Program.

The Changing Face of Urology

A dm it it you didn’t expect this year’s graduating urology residents to look like this.

For the first time in its history, Columbia’s entire graduating class of urology residents is made up of women.

“If the word ‘urologist’ came up in a word association game, most people would probably picture a man,” says Mitchell Benson, MD, the George F. Cahill Professor of Urology and chair of urology. “The field has traditionally been male-dominated because urologists have been thought of as a man’s ‘gynecologist’.”

That image, however, is slowly changing. Though there is currently about one female urologist in the United States to every 15 male urologists, demand is rising steeply and more female medical students are entering the field.

“Female baby boomers are starting to demand more help with quality of life issues such as urological problems,” says Kimberly Cooper, MD, a former urology resident at P&S who is now an assistant professor of urology and the department’s first female faculty member.

Male physicians can treat female patients just as well, of course, but people often want a doctor they feel can relate to their problems on a more personal level.

Erica Lambert, MD; Kristin Kozakowski, MD, P&S’03; and Sarah Lambert, MD, P&S’03, represent the first all-female class of urology residents to graduate from a U.S. urology program.

“A woman with frequent urinary tract infections after intercourse is probably going to be more comfortable talking to Kim than to me,” Dr. Benson says.

Along with increasing demand, the number of women choosing urology is rising because of the field’s distinctive traits. “It’s one of the few specialties where you can be surgeon and doctor to your patients, you can develop long-term relationships with them,” Dr. Cooper says. “You also have more control over your hours. Much of what we do can be performed in the office, but even our surgical procedures don’t take very long. It’s a fantastic field for maintaining a work-life balance.”

Urology at P&S has probably done more than any other program to increase the number of women urologists, Dr. Benson says. Beginning in the 1970s, John Lattimer, MD, chair of urology from 1955 to 1980, began training some of the first women to enter the field. “He created an environment that allowed women to feel comfortable, and not like pariahs,” Dr. Benson says.

In total, about 13 women have graduated from the P&S urology program; three women (not including the three new graduates) are currently enrolled.

—SUSAN COROVA
New Vision for Cataract Surgery

P&S PHYSICIAN USES A TECHNIQUE THAT GREATLY IMPROVES EYESIGHT

The latest advances in cataract surgery — microscopic incisions, along with state-of-the-art lens implants — now mean that people with cataracts can have simpler, less invasive surgery that not only reverses the vision loss caused by the cataract, but improves overall vision and corrects for astigmatism as well. "It’s like laser vision correction for people with cataracts," says Richard Braunstein, MD, the Miranda Wong Tang Associate Professor of Clinical Ophthalmology.

Two things have come together with- in the past two years to make this possi- ble, says Dr. Braunstein. The first is tech- nological advances in the ultrasound technology that’s used to break up the cataract-damaged lens — a procedure called phaco-emulsification. The new, smallest tips now allow cataract surgeons to perform surgery through incisions measuring only 2.2 mm — about the width of a fine necklace chain.

At the same time, new lenses have become available that fit through these minuscule incisions — and as a bonus, correct for astigmatism. Cataract surgery itself can cause additional astigmatism, by leaving the eye unevenly shaped. "Astigmatism happens when you have an eye shaped like a football instead of a sphere," says Dr. Braunstein. "Larger incisions change the shape of the cornea, weakening it in one direction and not another. By decreasing the size of the incision, we limit the amount of induced astigmatism." While the new micro-incisional approaches cause less astigmatism, the new lenses called Toric lens implants, can correct for nearsightedness, farsight- edness, and astigmatism that the patient may have had before the surgery. First approved by the FDA in 2005 but not widely used until early 2007, after the Centers for Medicare and Medicaid Services clarified coverage issues, the Toric implant is currently the only astigmatism-correcting lens on the market.

“Our patients think it’s great,” says Dr. Braunstein, who has been offering the new surgical technique, called micro- incisional coaxial surgery, since the sum- mer of 2007. “They see better much more quickly, have less overall risk from the surgery, and have smaller eye wounds that heal more quickly. And since most people have some astigma- tism, I think the astigmatism-correcting lens is going to be a real benefit to patients — certainly if they would have needed glasses to correct it otherwise.” The Toric lens implant is just one of a number of lens options; by choosing the right lens for the right patient, cataract surgeons can now improve most people’s vision to a remarkable degree, even giv- ing patients both distance and near vision without the need for glasses. "We can’t make guarantees, but in many ways, we can correct much larger degrees of nearsightedness and farsightedness today with cataract surgery than we can with laser vision correction," Dr. Braunstein says. —Gina Shaw

Kidney Failure

continued from Page 1

kidney failure and less threatening conditions. The test measures a small protein in urine called NGAL. The test was developed by a team led by Jonathan Barasch, MD, PhD, associate professor of medicine, Thomas Nickolas, MD, assis- tant professor of clinical medicine, and Prasad Devarajan, MD, director of nephrology and hypertension at Cincinnati Children’s Hospital. In a trial of more than 650 emergency patients, NGAL singled out those with acute kid- ney failure from all other patients in a matter of hours.

The findings were published in the June Annals of Internal Medicine. Other members of the team include Dr. Canetta, Jun Yang, MD, PhD, a third-year resident at St. Luke’s-Roosevelt; P&S’08 students Matthew O’Rourke P&S ’08 and Meghan Sise P&S ’09; and college students Nicholas Barash and Charles Buchen.

"We saw that a single measurement of NGAL was a better diagnostic test than a single measurement of serum creatinine, which can’t discriminate between a healthy kidney, chronically damaged kidney and one in acute failure," says Dr. Barash, who found a connection between NGAL and kidneys several years ago. "NGAL levels were 30 times higher in patients later diagnosed with acute kidney failure than in those without renal injury, chronic but quiescent injury or simple volume depletion.”

Finding a faster indicator has been a high priority ever since nephrologists began using serum creatinine as an indi- cator of kidney failure in the 1930s. High serum creatinine may point to a poorly functioning kidney, but it is also influ- enced by other factors such as age, race, and some medications. A rapid increase in creatinine over time is indicative of failing kidneys, yet two to three days can pass before this is apparent clinically.

For many patients, by the time the diagnosis is made, the damage to their kidneys has already been done. Twenty percent to 60 percent of patients with acute kidney injury require dialysis, and mortality rates range from 15 percent in the community setting, to between 50 percent and 80 percent where there is multi-organ failure, and more than 80 percent in the post-operative setting. In the current study, about 65 percent of patients with NGAL protein in the urine needed care from a nephrologist, another 32 percent needed dialysis, and 29 percent required care in the intensive care unit.

“This is an area of true need,” Dr. Nickolas says, “About one-fifth of hospi- tialized patients have some degree of acute kidney injury, and the rate is increasing. We need to have a better test that points us in the right direction sooner so we have a chance to save some of these patients’ kidneys.”

Better detection of acute kidney failure is not only needed to expedite treatment, but also to improve current treatments, just as the EKG and tro- ponin tests have done with heart attack therapies.

“Thanks to early diagnosis, treatments for heart attack patients have been developed and proven,” Dr. Canetta says. "If it took two to three days to detect a heart attack, cardiac catheteriza- tion — which doesn’t help much by then — never would have been proven effective.”

Many new treatments for acute kidney failure have worked well in animal studies, but those results have not been replicated in people. “It’s been disappointing. We think those therapies may have worked better if they were introduced earli- er,” Dr. Nickolas says. “But right now we can’t test new ideas in the early stages of the disease because we don’t even know who has the disease.”

Before the NGAL test can be put into use, the results of the Columbia study must be confirmed by a multi-center trial, already in progress, and the NGAL assay must be transformed into a hos- pital-ready test and approved by the FDA.

This work was funded by the NIH and the Emerald Foundation.

—Susan Conova

Student Papers on NGAL Test Win Prizes

A paper on the NGAL test presented by Matthew O’Rourke, P&S’08, won 1st prize at the 2007 Dean’s Day for Medical Student Research- meeting and the Louis Gibofsky Memorial Prize for research in Nephrology, Immunology or Transplant Immunobiology at 2008 P&S grad- uation. Meghan Sise, P&S’09, won “Outstanding Clinical Science Poster Presentation” at the 34th Annual Eastern-Atlantic Student Research Forum and the “American Medical Association Foundation Award for Overall Excellence in Clinical Research” and the “McLaughlin Award from the Institute for Human Infections and Immunity for Best Oral Presentation in Immunology or Infectious Diseases” at the 49th Annual National Student Research Forum. Both students were fellows of the Doris Duke Clinical Research Program, directed by Donald Landry, MD, PhD, professor of medicine and interim chairman of the Department of Medicine.

H O N O R S & A W A R D S

WAFAA EL-SADR, MD, MPH, director of the International Center for AIDS Care and Treatment Programs at the Mailman School, has been named to the World Health Organization’s Strategic and Technical Advisory Group on Tuberculosis. Dr. El-Sadr is among 20 international TB experts selected to serve on the group, which will advise the WHO on its range of global TB control activities.

KRISTINE M. GEBBIE, RN, DRPH, the Elizabeth Stanshall Gill Professor of Nursing, has received the 2008 Balderson Lifetime Public Health Leadership Award from the National Public Health Leadership Development Network.

J. JOHN MANN, MD, the Paul Jansen Professor of Translational Neuroscience (in psychiatry and radi- ology) in P&S, and Ezra Susser, MD, DPh, the Anna Cheikis Gelman & Murray Charles Gelman Professor and chair of epidemiology (Mailman) and professor of psychiatry (P&S) were selected by the National Alliance for Research on Schizophrenia and Depression, known as NARSAD, for its Distinguished Investigator Award. NARSAD also has selected 19 Columbia scientists to each receive a 2008 Young Investigator Award.

GARY STRUHL, PhD, professor of genetics & development, and CAROL PRIVES, PhD, the DaCosta Professor of Biology at Morrissey and a member of CUMC’s Herbert Irving Comprehensive Cancer Center, were selected for membership in the National Academy of Sciences.

C L I N I C A L C A R E
received nearly $344 million in NIH funding in fiscal year 2007, more than any other academic medical center in New York State, according to recently released data from the NIH. This figure includes grants given to Columbia’s health sciences faculty (about $292 million), its Department of Psychiatry at the New York State Psychiatric Institute (about $50 million), faculty at Columbia’s Morningside campus (about $45 million), many of whom have appointments at the medical center, and to Columbia faculty at affiliated institutions such as St. Luke’s-Roosevelt Hospital Center and its Institute for Health Sciences (about $10 million).

THE COLLEGE OF DENTAL MEDICINE has received a $1 million grant from the New York State Health Care Initiatives Pool to support its offsite patient care programs, including expansion of the dental facility within the Edward W. Stitt School, and to purchase a new mobile dental van to take oral health care services to the children of Northern Manhattan.

DOMENICO ACCILI, MD, professor of medicine-endocrinology, has been granted a five-year $6.5 million competitive funding renewal by the National Institute of Diabetes and Dignitive & Kidney Diseases for the Diabetes and Endocrinology Research Center that he directs. This center, in conjunction with the Naomi Berrie Diabetes Center, integrates basic and translational diabetes research with institutional centers of excellence in obesity, atherosclerosis, and cardiovascular biology research.

WESLEY GRUENER, PHD, assistant professor of physiology & cellular biophysics, has been awarded $1.7 million over five years by the National Institute of Neurological Disorders and Stroke. Dr. Gruener will study how dendrites, the branched projections of a neuron that are the major sites of information input in neural circuits, take cues from their extracellular environment during development to ensure accurate wiring of the nervous system.

ANN MARIE SCHMIDT, MD, the Gerald and Janet Carrus Professor of Surgical Sciences (in Surgery), has been awarded a five-year $8 million program project grant by the National Institute on Aging to examine the role of the aging process in risk for ischemia. A particular focus of these studies is the role of RAGE (receptor for advanced glycation endproducts) and the polyol pathway, a mechanism implicated in a number of diabetic complications, aging, and cardiovascular injury in aging.

CUMC AT LARGE

KIDS HONOR GRANDFATHER BY RAISING MONEY FOR RESEARCH

Sammy and Jacob Landa thought their grandfather, Dr. Lloyd Landa, deserved a special gift for his 75th birthday, so they went to work to raise money. Jacob, age 10, spent a few afternoons washing cars with friends; Sammy, age 8, performed Irish step dancing for donations on a busy street corner in the family’s hometown of Alexandria, Va. Together they raised $265.21, but instead of spending the money on a store-bought gift, the boys gave the money to the Mitchell C. Benson Cancer Research Fund in honor of their grandfather, a patient of Mitchell Benson, MD, the George F. Cahill Professor of Urology and chairman, Department of Urology. The boys’ parents provided matching funds to bring the donation to $532.42.

"Jacob and Sammy are aware that their grandfather is a cancer survivor and that he is one of the lucky ones," Debbie Landa, the boys’ mother, says. “Unfortunately, they know some people who weren’t as lucky and they wanted to raise money to help change that.” Dr. Benson says he has received larger gifts but none more special or moving than this one. “I have known Dr. Landa for many years and it is no surprise that he has such wonderful and thoughtful children and grandchildren,” he says.

PLAYING TO WIN AGAINST PEDIATRIC BRAIN TUMORS

Neurosurgeons from 16 of the nation’s top medical institutions, including four in New York City, battled it out June 7 in Central Park at the Fifth Annual Neurosurgery Softball Tournament to Benefit Pediatric Brain Tumor Research. All funds raised go toward pediatric brain tumor research at Columbia. About $150,000 has been raised since the inception of the games. Harvard won this year’s tournament.

For the fifth consecutive year, George Steinbrenner and the New York Yankees have sponsored the tournament. This year, NY Giants running back Brandon Jacobs and ESPN anchor Jeremy Schaap threw out the first pitches.

The CVRI supports the awarding of the Lewis Katz Prizes in Cardiovascular Research, which were created in the Division of Cardiology by philanthropist Lewis Katz to recognize achievement in cardiovascular research and education.

With heart disease still the major cause of death and disability in many parts of the world, a great need exists to integrate basic and applied research and quickly get improved treatments to patients,” says Dr. Kass. "Our talented faculty need to be provided with the opportunities to make their best possible contributions. The CVRI will be the catalyst to make this happen."