Columbia Receives Up to $15 Million for SMA Research

Columbia University has been awarded up to $15 million from the Spinal Muscular Atrophy (SMA) Foundation. The grant will fund activities by Columbia’s new Center for Motor Neuron Biology and Disease to accelerate the discovery of medical advances for SMA, a devastating genetic disease that is the No. 1 killer of infants and toddlers.

SMA is characterized by the wasting of skeletal muscles due to progressive degeneration of nerve cells in the spinal cord. Loss of function leads to death from respiratory problems; half of its victims die before age 2. The SMA Foundation estimates about 25,000 to 55,000 people have SMA in the U.S., Europe, and Japan. Only palliative care is now available. Research progress in the last decade, however, has made SMA scientists and clinicians optimistic that treatments can be developed in the next few years.

The Center for Motor Neuron Biology and Disease, also referred to as the Motor Neuron Center (www.ColumbiaMNC.org), was founded at Columbia in November 2005. It focuses on the biology of the disease, also referred to as the Motor Neuron Center, and the biology of motor neuron degeneration – SMA and amyotrophic lateral sclerosis (ALS), or Lou Gehrig’s Disease. The center’s mission is to create a cohesive translational research center where lab findings are quickly translated into treatments and clinical findings are brought into the lab to shape new research directions.

More than 40 leading researchers from numerous disciplines at CUMC and Morningside, including neurobiology, neurology, genetics, pathology, cell biology, physiology, anatomy, chemistry and pediatrics, have converged to form the center. Members include a Nobel Prize winner and three Howard Hughes Medical Institute investigators.

The gift, which will be distributed over five years, is the largest ever made by a private foundation for SMA research. The Center for Motor Neuron Biology and Disease will recruit new investigators to complement existing Columbia expertise.

“The SMA Foundation is a tremendous partner in our work,” said Chris Henderson, Ph.D., co-director of the Center for Motor Neuron Biology and Disease, along with Serge Przedborski, M.D., Ph.D., professor of neurology, pathology and cell biology, and Danyel De Vivo, M.D., the Sidney Carter Professor of Neurology. “We value their ongoing input and collaboration, which provides a new perspective on how to take basic research findings and move them toward the clinic. We hope that this approach will generate both new biological insights and relief for families living with SMA.”

Patient’s $9 Million Bequest Supports Medical Education

Funds Allow 12 Department of Medicine Faculty to Be Recognized for Teaching Excellence

For the past 25 years, Tom Jacobs, M.D., professor of clinical medicine, has rarely turned down an opportunity to teach. Despite the fact that he runs a thriving endocrinology practice upon which he is almost entirely dependent for his income, Dr. Jacobs has devoted literally thousands of hours to training medical students and house staff over the years and he has done so largely without compensation.

Each newly minted M.D. is the product of many hours of faculty teaching efforts. While much of the foundation of medical knowledge is learned in lecture courses, clinical skills are learned in the clinic and at the bedside with individual attention to each student, resident, or fellow. Katherine Nickerson, M.D., associate professor of clinical medicine and vice chair of the Department of Medicine, estimates that the Department of Medicine provides 60 percent of the faculty time involved in teaching medical students. Indeed, a 1992-93 study, published in the New England Journal of Medicine in January 1996, revealed that full-time faculty members in Columbia University’s Department of Medicine devoted on average 137 hours per year to teaching, most with little or no compensation.

Tuition dollars and other sources do not come close to covering the true costs of undergraduate and graduate medical education. That same article calculated that the Department of Medicine received less than $16 per hour to cover its faculty’s efforts, in educating students and residents. Those dollars largely provide salary support for course directors and support the infrastructure for the residency program.

The problem is the same at medical centers across the country. As hospitals increasingly compete for limited research and patient-care dollars, fewer doctors can afford to be generous with their time. Clinical education has been getting short shrift.

Rheumatologist Ralph S. Blume was the long-time physician of the late Thelma Ewig, an ardent supporter of medical education.

For this reason – and to honor physicians like Dr. Jacobs and the values he embodies – philanthropist Thelma Ewig was moved to provide a $9 million bequest to support clinical education within the Department of Medicine. Her appreciation of the importance of clinical education grew from a decades-long relationship with her personal physician Ralph S. Blume, M.D., clinical professor of medicine. “Thelma Ewig recognized that medical education is dependent on clinical faculty’s mostly voluntary efforts,” Dr. Blume says. “It would be wonderful if this great step she took to help educate physicians was followed by more generosity, because the need remains very high.”

Income from the bequest will be awarded as $30,000 prizes to individual faculty members selected by committee for their outstanding contributions. (See sidebar for this year’s recipients.) The monetary awards will be granted to four junior, four mid-career, and four senior faculty members each year, for periods of three years, two years, and one year, respectively.

“Ms. Ewig’s bequest is a huge boon to the Department of Medicine,” says Dr. Nickerson, who served as a member of the selection committee, along with Dr. Blume and David Brenner, M.D., professor and chairman of medicine. “The grant is significant both in terms of its dollar value and also as a symbol of the role philanthropy now plays in the formation of our nation’s doctors. Strategically, it allows the department to foster innovation among young doctors, free up teaching time for overextended mid-career faculty, and recognize the contributions of those, like Dr. Jacobs, who have given so generously of themselves over the years.”

– Eva Mayer

Ewig Award Recipients

Tom Jacobs
Professor of Clinical Medicine

Teaching credits: To name a few: Chief of Section, Pathophysiology Course; Lecturer in Pharmacology; Preceptor, Medical Clerkship; Chief of Service Rounds; Attending Physician on the Medical Service; Preceptor in Endocrine Clinic; Attending for the Endocrinology Consult Service; also takes resident and intern reports whenever requested to do so.

Why he teaches: “I learn so much from students and other attendings. When I give a talk to students or housestaff or to my peers, I have to be prepared. If possible, I try to pick a topic that I don’t know

Garvey Academy Gains Momentum

The first fellows of the Glenda Garvey Teaching Academy, which was created in September to recognize excellence, reward achievement and promote innovation among health professionals at CUMC, were introduced in January at the ceremony to mark the opening of the newly renovated library spaces in the Hammer Health Sciences Center.

The multidisciplinary academy includes faculty members from PBS, the College of

Photo: Charles Mayday
**David Diuguid, M.D.**

**Associate Professor of Clinical Medicine and Clinical Pathology (Hematology and Medical Oncology)**

Teaching credits: A sample: Hematology Section Leader, Pathophysiology Course; Lecturer, Advanced Clinical Pathology (a fourth-year elective); Attending for the Harkness Report, a consultation service geared toward outpatient management.

**Known for:** The subtlety of his thinking regarding differential diagnosis, potential treatment options, and follow-through. Also considered easy to work with and patient-focused.

**Typical student comment:** "We would have needed a whole year of rounding with Dr. Diuguid before we could have even tapped into his knowledge base."

**Favorite teaching venue:** "All have their advantages. Teaching medical students is like shaping unformed clay. Teaching residents is easier, because they have the knowledge base and you can get to the meat of the issue quickly. Teaching attendings is even easier but they are also more set in their ways, and experience can be a detriment.”

**Why he teaches:** "My personal reason for doing it is that at some point I will retire and someone else will do this job. I hope that all the extra effort I’m putting into training students will not just advance the science, but also inspire them to give back in turn."

**The take-home point:** "The facts change all the time. More important than book learning is your approach, keeping an open mind, and applying problem-solving skills.”

**Nell Eisenberg, M.D.**

**Assistant Clinical Professor of Medicine**

Currently teaches: First-, second-, and third-year medical students in Clinical Practice, Physical Diagnosis, and Medicine Clerkship as well as medicine interns and residents in outpatient clinics.

**Teaching style:** "I like to teach medical students the most practical, hands-on skills that they need first, from proper hand-washing technique, to adjusting a hospital bed, to preserving a patient’s privacy and dignity.”

**Greatest challenge:** "Teaching students in an underserved community, where many patients are poor immigrants, and often have social, economic, or language barriers to optimal health. These challenges often make the clinical interaction more difficult.”

**Students call her:** "Energetic,” “Creative,” “Patient-centered.” One student marveled that, on her own time, Dr. Eisenberg helped her wrestle a payment from Medicaid on behalf of a patient, literally phoning and filling out paperwork herself.

---

**Jeanine D’Armiento, M.D., Ph.D.**

**Assistant Professor of Medicine**

**Known for:** Her approach is integrative, extending across technologies and disciplines. In addition to her generosity as teacher, she has developed an interactive Web, which provides access to Physical Diagnosis course materials and Web links to various aspects of the physical examination. She has also enhanced the curriculum with a series of seminars in conjunction with the Clinical Practice II course, and continues to work on curriculum innovations.

**Why she was chosen:** “Her approach is integrative, extending across technologies and disciplines. In addition to her generosity as teacher, she has developed an interactive Web, which provides access to Physical Diagnosis course materials and Web links to various aspects of the physical examination. She has also enhanced the curriculum with a series of seminars in conjunction with the Clinical Practice II course, and continues to work on curriculum innovations.”

**Other Recipients**

**Gail Williams, M.D.,**

Clinical Professor of Medicine

**Arthur Magun, M.D.,**

Clinical Professor of Medicine

**Chun Yip, M.D.,**

Clinical Professor of Medicine

**Evelyn Horn, M.D.,**

Associate Professor of Clinical Medicine

**Anita Damarian, M.D.,**

Associate Clinical Professor of Medicine

**Leroy Rabbani, M.D.,**

Associate Professor of Clinical Medicine

**Jai Radhakrishnan, M.D.,**

Assistant Professor of Medical

**Christine Hogan, M.D.,**

Assistant Professor of Clinical Medicine

**Nancy Chang, M.D.,**

Assistant Clinical Professor of Medicine

---

**RICHARD S. ROBINSON, PH.D.,**

professor of pharmacology, has been appointed associate dean of graduate affairs. In his new role, Dr. Robinson will oversee the graduate programs and Office for Graduate Affairs and will sit on the Executive Committee of the Graduate School of Arts and Sciences to ensure the success of campus scientific enterprises. Dr. Robinson served as director of the graduate program in the Department of Pharmacology from 1989 to 2005, while at the same time conducting his own research on the regulation of cardiac ion channel expression and function by development and disease. He also is a collaborator on a project with Columbia and Stony Brook University scientists to explore the use of gene and stem cell therapies as alternatives to electronic pacemakers to treat cardiac rhythm disorders. Dr. Robinson succeeds RICHARD KESSIN, PH.D.

**JEANINE D’ARMIENTO, M.D., PH.D.,**

associate professor of medicine in the divisions of molecular medicine and pulmonary medicine at CUMC, has been appointed associate dean for gender equity and career development for the College of Physicians & Surgeons. Among Dr. D’Armiento’s responsibilities in her new part-time position will be to implement recommendations from the Task Force on Women Faculty – created to identify issues facing female faculty at P&S – and to foster a climate of support and development for all faculty. In addition, she will work to increase the number of women at each rank of the college and the amount of female representatives on college committees and to develop a salary equity tracking system. Dr. D’Armiento also will develop an infrastructure for mentoring and skills development for all faculty.

**GERARD KARSENTY, M.D., PH.D.,**

has been named the new chairman of the Department of Genetics and Development. Dr. Karsenty has made major contributions to the understanding of the genetics and cell biology of degenerative bone diseases. He was the first to demonstrate connections between bone metabolism, energy metabolism and the autonomic nervous system. Dr. Karsenty is editor of several major journals, including Endocrinology, Bone, Journal of Cell Biology, Developmental Cell, and Cell Metabolism. Dr. Karsenty comes to CUMC from the Baylor College of Medicine where he was professor in the department of molecular and human genetics. Frank Costantini, professor of genetics and development, has been acting chairman of the department since January 2001.