

# RUSK

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Capturing the Momentum of Rehabilitation Medicine  
at NYU Langone Medical Center

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*WINTER 2011-2012*





## From The Chairman

Exciting developments are underway at Rusk in 2012.

In the coming months, we will expand to new, state-of-the-art facilities as part of NYU Langone Medical Center's ambitious campus transformation project. As the project unfolds, Rusk will play an increasingly important and visible role in providing world-class inpatient and outpatient physical medicine and rehabilitation (PM&R) care across the Medical Center and its affiliates. The Rusk name—which has been synonymous with the highest quality rehabilitation care for more than six decades—will continue to represent our rehabilitation services as we move into facilities that better reflect the outstanding talent and dedication of our faculty and staff.

I am pleased to share with you more of our latest work in this winter edition of RUSK. You will learn of our iPad initiative, displaying Rusk's potential to harness new technologies for the enhancement of patient care and professional education. Our renewed activities in community outreach, serving to improve the lives of a diverse range of individuals with disabilities, are also covered in these pages. Rusk's rich teaching legacy has been amplified with new initiatives designed to upgrade the education and training of physicians, nurses and other healthcare professionals throughout the world. Our cardiac rehabilitation division continues to lead the way for innovative clinical care, education and research as it serves the full continuum of care for people with cardiac disease. I am also proud of the work of my Rusk colleagues conducting research and disseminating knowledge at meetings all around the globe; their contributions were recognized at our annual John G. Gianutsos Award Ceremony this past fall, named for Rusk's esteemed, late director of research.

As the Rusk transformation unfolds over the coming year, I look forward to sharing more about the transition to our newest facilities. In the meantime, I hope you will enjoy reading about the ever-expanding efforts at Rusk to improve the lives of individuals with disabilities.

Steven R. Flanagan, MD

The Howard A. Rusk Professor of Rehabilitation Medicine  
Chairman, Department of Rehabilitation Medicine  
Medical Director, Rusk Institute of Rehabilitation Medicine

# Top Five at Rusk

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## The Rusk iPad Project: There's a Study for That

From the construction of the first single-lens microscope to the advent of functional MRI's, profound advances in healthcare have been inextricably linked to great leaps in technology. The perpetual need for advancement in both fields is intertwined, with promising improvements in patient outcomes and in the efficient delivery of care.

The iPad is at the forefront of "mHealth," or mobile health, the practice of using mobile devices to enhance communication, education, and access to information. Physicians and researchers at Rusk were early adopters of iPad technology, and introduced a comprehensive study—among the first of its kind in the country—

to understand the implications of the tablet in everyday use.

*Given the multidisciplinary nature of physical medicine and rehabilitation and the spirit of innovation behind patient care at Rusk, we are uniquely well-positioned to examine the value of iPad technology for our field.*

Divided into three phases, the study explores the efficacy of the iPad in real-time clinical settings. Researchers began by surveying physicians to determine whether they were using mobile devices and how they felt about handhelds as point-of-care tools. Phase I put the iPad to use among 23 residents and 6 attendings, who overwhelmingly affirmed that it improved education and streamlined communications. Ninety-four percent felt it improved self-education, and 91% reported improved access to real-time information. Indications were also very strong that using the device improved workflow and communication (85%) and board preparation (80%). For improving rounds and post-rounds education among fellow professionals, and for promoting patient education, 100% responded in the positive<sup>1</sup>. Results of the pre-test on physician attitudes towards mobile devices were published in PM&R<sup>2</sup>, while complete results from Phase I were recently presented at the prestigious mHealth Summit.

The scope of the program broadens in Phase II, which examines how physicians can use the iPad with inpatients or outpatients in a clinical setting and how that interaction affects patient education, communication, and satisfaction. Preliminary indications are promising; anecdotally, our speech and language pathologists have already seen evidence of iPad applications increasing patient attention to task, expanding vocabulary, and improving speech intelligibility when used as a supplement to traditional therapies. Phase

III is multidisciplinary and multi-tiered, with iPads being distributed to allied health professionals, nursing staff, and other specialties to gain a more global perspective on its utility.

PM&R is in many ways the ideal field to adopt an innovative device that can facilitate better understanding of patient function, mental health, activities of daily living, and pain. As today's physicians navigate tomorrow's pathways, it's increasingly clear that technology is more than a useful tool for improving efficiency. In the right hands, it's an invaluable key to transforming healthcare.

1. "Examining the Utility of Mobile Health in a Real-time Clinical Setting through the use of iPads: Part One of a Multi Phase Study." Conference: mHealth Summit, National Harbor, Washington, D.C., December 5-7, 2011.

2. Elwood D, Diamond MD, Heckman J, Bonder JH, Beltran JE, Moroz A, Yip J. Mobile Health: Exploring Attitudes Among Physical Medicine and Rehabilitation Physicians Toward this Emerging Element of Health Delivery. PM R. July 2011; 3:678-680.

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## Rusk Research: 3rd Annual John G. Gianutsos Awards Ceremony

Bearing the name of a late Rusk professor revered for his humanism and perseverance, the 3rd Annual John G. Gianutsos Awards Ceremony was held on October 26, 2011. Recipients of these internal honors are

recognized for excellence in academic, peer-reviewed research, and are a source of pride at Rusk, where enhancing research initiatives is a major focus of the organization and its leadership.

*Bestowment of a John G. Gianutsos Award is a testament to the hard work and dedication entailed in conducting and—importantly—sharing results amongst colleagues and peers to contribute to clinical knowledge and patient care.*

Herb Zaretsky, PhD, clinical professor of rehabilitation medicine and the evening's special guest speaker, spoke of the distinguished history of education and training at Rusk and the long-standing tradition of recognizing research advancements and scholarly work.

Twenty-five professional staff were cited for publications, thirteen for national presentations, twelve for international presentations, and three for keynote addresses. These recognitions spanned numerous disciplines and research areas, including prosthetic research and development, psychology, occupational therapy, rehab medicine, and speech-language pathology.

The evening also celebrated publication of *Medical Aspects of Disability—Fourth Edition: A Handbook for the Rehabilitation Professional* (Springer Publishing Company, NY: 2011), a text of great significance in the field of rehabilitation, which was edited by Steven R. Flanagan, MD, Herb Zaretsky, PhD, and Alex Moroz, MD. Many Rusk faculty also contributed to the textbook, exemplifying the transdisciplinary and multispecialty collaboration that Rusk Institute of Rehabilitation Medicine has fostered for decades.

The awards were named in 2009 by Dr. Flanagan in memory and honor of John G. Gianutsos, PhD (1932–2008). Known for his

creative spirit, his empathy for patients (many of whom became lifelong friends) and for the mentoring of students, Dr. Gianutsos was a Rusk faculty member for 30 years. As the director of research he operationalized and managed the Motor Behavior Laboratory and Clinic—a unique setting as alive with music as with the enthusiasm of patients. It is in his spirit of building on tradition and seeing through barriers that this year's awardees are recognized and congratulated.

“We are continuously raising the bar on Rusk research, amplifying the quantity and quality of our research initiatives,” says current Director of Research Tamara Bushnik, PhD. “Receiving a John G. Gianutsos award offers validation from Rusk leadership that the recipient is contributing to this mission and to the greater goal of progress in rehabilitation medicine.”

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## The Leaders of Tomorrow: Setting the Standard in Education & Training

Committed to the belief that excellence is teachable, Rusk upholds a distinguished history of training physicians, nurses,

therapists and other professionals in rehabilitation. Rusk has an illustrious record of having trained over 800 physicians—more than any other organization worldwide—to be highly capable and confident physiatrists.

*Our proud legacy of attracting exceptional students is attributable to a longstanding reputation as a leader and to having the versatility to align education with the interests of our students.*

We have spent the last decade enhancing our programs for trainees of every level, from college students to physicians in practice, since lifelong learning is a key pursuit in order to stay current in clinical practice.

Cultivating expertise is integral to Rusk's vision and extends to all disciplines. Our educational mission is accomplished in part by broad-based training incorporating all areas of PM&R. By extending the pedagogic reach across the entire span of Rusk's clinical services, the education of our students can mirror the multidisciplinary approach employed by our physicians and physiatrists. Our faculty encourage trainees to become active participants in patient care, and have been acclaimed for effortlessly incorporating training into their daily rounds.

By educating and training the leaders of tomorrow, Rusk affirms its preeminent position in the field of rehabilitation while assuring its legacy. Our capacity to prepare successive generations of physicians and physiatrists for elite careers is evident in the quality and quantity of students who have come through our programs in the last decade:

- More than 300 NYU School of Medicine students trained in PM&R, in addition to over 400 medical students rotating from other schools around the country.
- More than 200 undergraduates trained in the Health Career Opportunity Program,

a unique hands-on clinical experience geared primarily towards college students interested in entering the health field.

- Our annual PM&R review course, now in its 37th year, has educated more than 800 physicians, coming from 36 states and Canada.
- Over 1,000 PM&R and orthopaedic surgery residents from programs around the country trained in the area of prosthetics and orthotics.
- Our faculty helped establish annual disability curricula for students and are involved in the university- and medical center-wide Council for the Study of Disability.

*As one indication of our success, our rehabilitation medicine program has produced 25 department chairs at prestigious medical schools across the country, including five current chairs.*

Rusk residents and faculty also occupy leadership positions at the most esteemed national and international organizations, including the American Academy of Physical Medicine and Rehabilitation, the American Congress of Rehabilitation Medicine, and many more vaunted institutions.

In the near future, Rusk will add rotations in musculoskeletal medicine and in sports medicine (including musculoskeletal ultrasound training), and launch a brain injury medicine fellowship. The new programs reflect not only our aptitude in emerging areas of physiatry, but the passionate continuation of our mission to produce the leaders of tomorrow.

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## Cardiopulmonary Rehabilitation: Caring For (and From) the Heart

Since the founding of the Joan and Joel Smilow Cardiopulmonary Rehabilitation and Prevention Center in 1991, Rusk has been at the forefront of advances in the management of cardiopulmonary disease, offering the largest and most comprehensive cardiopulmonary rehabilitation and wellness programs in New York's tri-state area.

Rusk's cardiopulmonary programs provide a complete continuum of care, in a patient-centered environment.

*Each patient transitions through care points that begin and end in the community and follow the patient through acute inpatient, outpatient, maintenance and wellness phases.*

The center utilizes a team-based, collaborative approach, improving connections across disciplines, cardiovascular and pulmonary rehabilitation specialties, and affiliated locations.

Developed in collaboration with NYU Langone's Cardiac and Vascular Institute and the Division of Pulmonary and Critical Care Medicine, the program has transitioned more

than 12,000 patients with comorbidities (such as diabetes, hypertension, hyperlipidemia, obesity and restrictive and obstructive pulmonary conditions) from treatment or surgery back into their communities, where focus is on the recovery and maintenance phase of their care. In 2011, our program was responsible for 27% of regional and 5% of national acute inpatient cardiopulmonary rehabilitation discharges, with an average length of stay of 11 days. The cardiac rehabilitation outpatient program, which has been certified by the American Association of Cardiovascular and Pulmonary Rehabilitation since 2006, has a completion rate of 80%, and a 75% completion rate for the cardiac exercise improvement training for the period of 2000 to 2009.

The center is committed to academic translational research and to community engagement, evident in its educational role at NYU Langone's Institute of Community Health and Research and in the creation of the NYU Langone Chapter of Mended Hearts, established at Rusk in 1997 by graduates of the outpatient program. Additionally, the center has participated in over 100 outreach studies during the past two decades to promote population health, and has conducted further research under grants from the American Heart Association, the Langeloth Foundation and the Handler Foundation. Over the years, the center has received grants from the American Heart Association, Langeloth Foundation and Handler Foundation to study the nonpharmacological approaches to lifestyle changes in heart failure patients and cardiac rehab outpatient adherence to heart healthy lifestyle post program. Center staff have been published extensively and have presented at national and international multispecialty conferences.

In these endeavors as in the daily treatment of patients, the Center is dedicated to the circle of care and, in its broader vision, to advancing cardiopulmonary rehabilitation and prevention ever forward.

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## Rusk in the Community

At Rusk, rehabilitation is not just about providing clinical care for individuals with a disability, condition, or injury—it's about wellness and prevention, the importance of making healthy choices, and raising awareness of the benefits of rehabilitation. This is achieved by developing ongoing relationships with community-based organizations to provide educational seminars, interactive health screenings, and enriching activities in diverse populations. Significant efforts by our motivated, enthusiastic Rusk faculty and staff went into hosting a series of events this year around awareness months of particular importance in the field of rehabilitation.

**Brain Injury Awareness Month** (March 2011) centered on educational lectures held at the renowned Chelsea Piers Sports & Entertainment Complex. Rusk pediatric physiatrist Renat Sukhov, MD, and Marie Briody, PhD, a senior pediatric psychologist, conducted a lecture for parents and another for coaches on “Concussion: The Invisible Injury.” An awareness

campaign was also launched that month, with magnets on the signs and symptoms of concussion distributed to the public via sports and athletic stores in the New York City area.

“Living Successfully with Stroke” was Rusk’s **Stroke Awareness Month** (May 2011) seminar for survivors, caregivers and loved ones. The event consisted of an educational lecture on stroke recovery/wellness and a powerful panel session, where stroke survivors discussed what it meant to them to live successfully after a stroke. An open house of Rusk’s Motor Recovery Research Laboratory followed the seminar, allowing community attendees to learn about Rusk’s latest research. Rusk presenters and stroke survivor guest speakers addressed a “packed house,” and the event was deemed a remarkable success.

Rusk’s third year celebrating **Rehabilitation Awareness Week** (September 18-24, 2011) was its most expansive yet, with educational, informational, and social events for the community and for healthcare professionals:

- A multidisciplinary team of Rusk pediatric rehabilitation professionals traveled to the Bedford Central Presbyterian Church in Brooklyn to speak directly to the community about head injury in children.
- The NYU Langone Amputee Support Group hosted its first annual amputation rehabilitation educational conference and social event aboard a sightseeing cruise ship in Manhattan’s waters.
- An exhibition—“Rehab and its Role in the Continuum of Care”—was held at NYU Langone Medical Center, where Rusk’s multidisciplinary specialists interacted with the public and internal NYU Langone communities to share the benefits of rehab.
- Rusk’s pediatric rehab patients became sought-after artists at “The Art of Ability: Pediatric Art Show and Auction.” The event, which took place in an actual art gallery, was created in partnership with Bear Givers, a nonprofit organization that brings joy to children and adults through the symbolic gift of a teddy bear.
- Several accredited, professional educational events were held, including a CME course spearheaded by Rusk physiatrist Jeffrey M. Cohen, MD, on hereditary neuromuscular disorders.

In addition to therapeutic programs and awareness events, Rusk provides ongoing support to the community by sponsoring a number of groups that meet regularly, bringing together patients and/or caregivers of individuals who are dealing with similar issues.

By way of these events and ongoing support groups, Rusk maintains a strong presence in the community, providing expertise, support, and outstanding rehabilitation care.

## Rusk Institute of Rehabilitation Medicine

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