NYU Langone Health

Rusk Rehabilitation

2018 Year in Review

MESSAGE FROM THE CHAIR

This was an exciting year for us at Rusk Rehabilitation, with new endeavors aimed at helping patients regain their strength, independence, and quality of life.

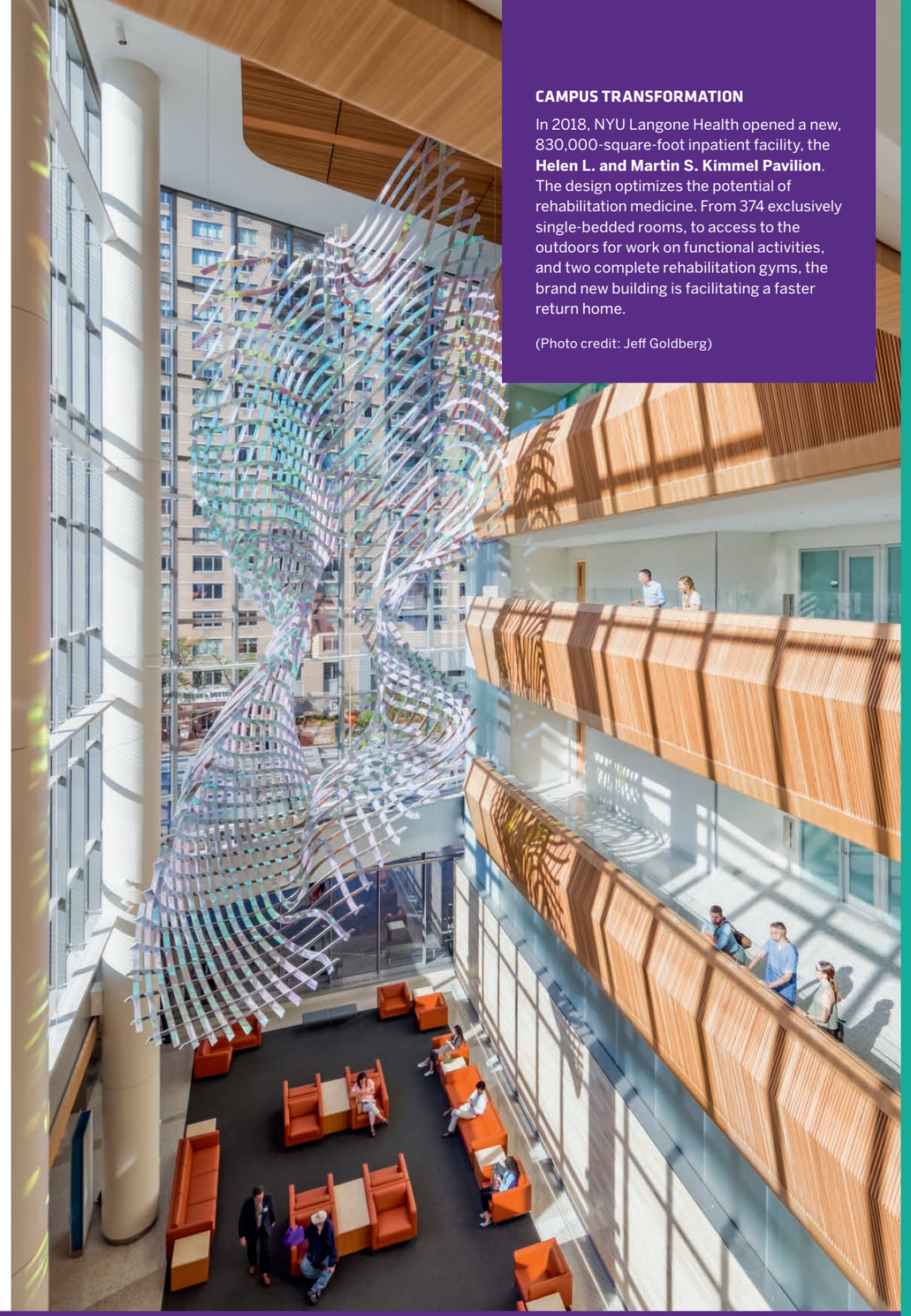
This annual report highlights some recent accomplishments as well as complex patient cases with which our faculty and staff members are proud to have been involved.

The new Division of Oncological Rehabilitation at NYU Langone Health is greatly assisting cancer patients in meeting their rehabilitative goals. Rusk's rehabilitation experts were critical in the remarkable recovery of a heart transplant patient and enabled a young stroke patient to regain her musical abilities. Our involvement in the Traumatic Brain Injury Model Systems program has revealed crucial insights about disparities in patient outcomes.

Looking ahead to the future, we will continue to expand access to rehabilitation medicine, engage in valuable research, and exercise our passion for restoring patients' abilities.

STEVEN R. FLANAGAN, MD

Howard A. Rusk Professor of Rehabilitation Medicine
Chair, Department of Rehabilitation Medicine
Medical Director, Rusk Rehabilitation



CAMPUS TRANSFORMATION

In 2018, NYU Langone Health opened a new, 830,000-square-foot inpatient facility, the **Helen L. and Martin S. Kimmel Pavilion**. The design optimizes the potential of rehabilitation medicine. From 374 exclusively single-bedded rooms, to access to the outdoors for work on functional activities, and two complete rehabilitation gyms, the brand new building is facilitating a faster return home.

(Photo credit: Jeff Goldberg)

RUSK REHABILITATION

Top 10

IN THE COUNTRY FOR REHABILITATION

in *U.S. News & World Report*'s "Best Hospitals" since it began it's rankings

3-Year

CARF ACCREDITATION

granted in 2016 CIIRP, Pediatrics, Brain Injury, Stroke, and Limb Loss; exemplary conformance in research and community outreach

AACVPR

DUAL PROGRAM CERTIFICATION FOR CARDIAC AND PULMONARY

for Rusk's Joan and Joel Smilow Cardiac Prevention and Rehabilitation Center

126

CERTIFIED SPECIALIST PHYSICAL THERAPISTS

accounting for nearly

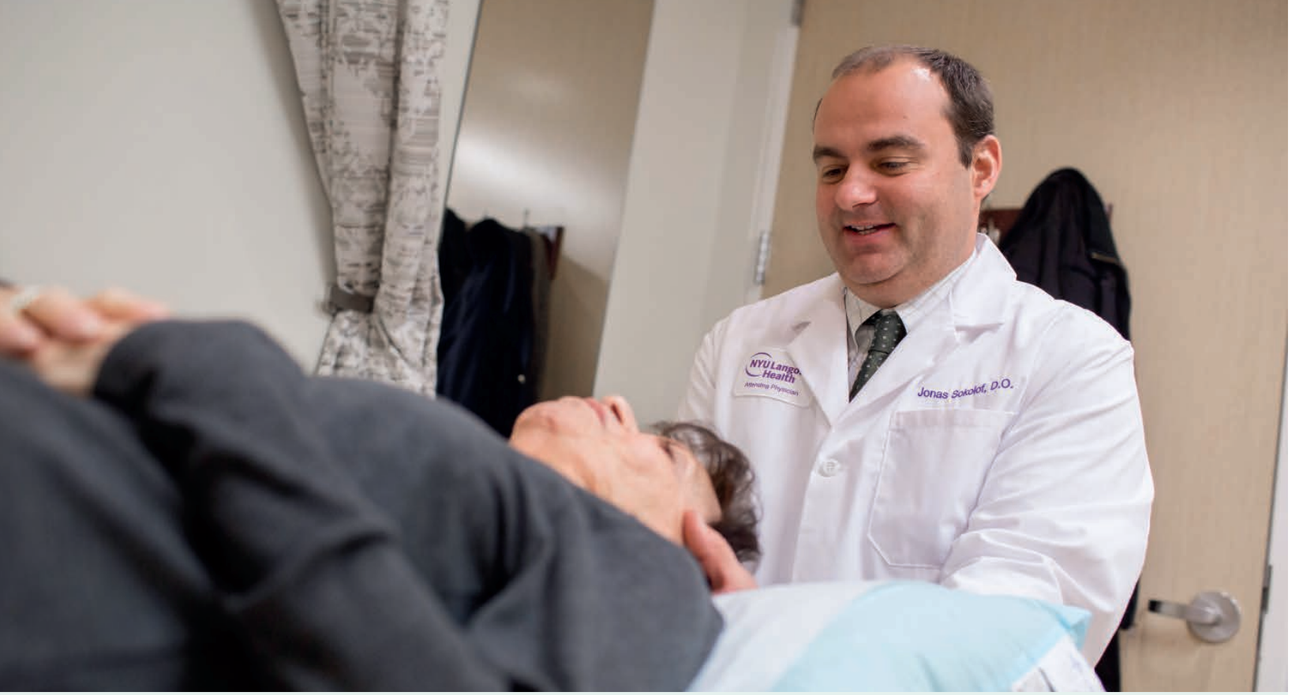
10%

of all certified specialists in the state of New York

$4M+

RAISED IN PHILANTHROPIC FUNDS

Numbers represent FY18 (Sept 2017–Aug 2018)



New Oncological Rehabilitation Division Optimizes Quality of Life for Cancer Patients

Nearly 18 million Americans are expected to be living with cancer by 2022. Thanks to ongoing therapeutic improvements, more of them will be living longer with the disease. Many patients will face significant functional morbidity due to their cancer, their treatment, or both, and multiple studies suggest that doctors are still struggling to identify and address cancer's adverse physical and psychological effects. Despite the high need for intervention, most patients are not referred to rehabilitation services for their impairments.

Jonas M. Sokolof, DO

In 2018, Rusk Rehabilitation at NYU Langone Health launched a specialized, highly collaborative program to address the complex rehabilitative needs of individuals with cancer. "Our mission is to improve function and quality of life for all cancer survivors throughout the entire care continuum, from diagnosis through treatment to post-treatment care, remission, and even long-term follow-up," says Jonas M. Sokolof, DO, director of the new Division of Oncological Rehabilitation. Dr. Sokolof came to NYU Langone in 2018 from Memorial Sloan Kettering Cancer Center.

In partnership with medical oncologists, radiation oncologists, surgeons, and nurses at NYU Langone's Perlmutter Cancer Center as well as with a wide array of other providers, the rehabilitation program can offer individualized care plans for each patient, Dr. Sokolof says. Care may include physical therapy, occupational therapy, osteopathic manipulation, speech-language and swallowing therapy, vocational therapy, psychological services, music and recreational therapy, pain management, social work services, and lifestyle interventions such as nutritional counseling, exercise, and stress management.

"Given the broad range of preventive, restorative, supportive, and palliative rehabilitative services, every single cancer patient can benefit from some form of rehabilitation encounter," says Dr. Sokolof.

EMPHASIZING THE ROLE OF EXERCISE

Dr. Sokolof plans to further expand rehabilitation services with a program that emphasizes the role of exercise in cancer survivor health and treatment of the disease. "We want patients to be physically active from the time of diagnosis all the way through the completion of their treatment—and beyond," he says. "There are strong data indicating that exercise can improve quality of life for cancer survivors, improve overall function, decrease fatigue, protect against the disease itself, improve mortality and survival, and reduce the risk of recurrence."

> "Given the broad range of preventive, restorative, supportive, and palliative rehabilitative services, every single cancer patient can benefit from some form of rehabilitation encounter."
>
> **—Jonas M. Sokolof, DO**

One question is how to determine the appropriate level of intervention for each cancer patient. Dr. Sokolof is participating in an American College of Sports Medicine International Multidisciplinary Roundtable on Exercise and Cancer to create new guidelines for prescribing therapeutic exercise. He is also working in conjunction with a group of specialists gathered by the American Congress of Rehabilitation Medicine to create a new model for exercise-focused rehabilitation.

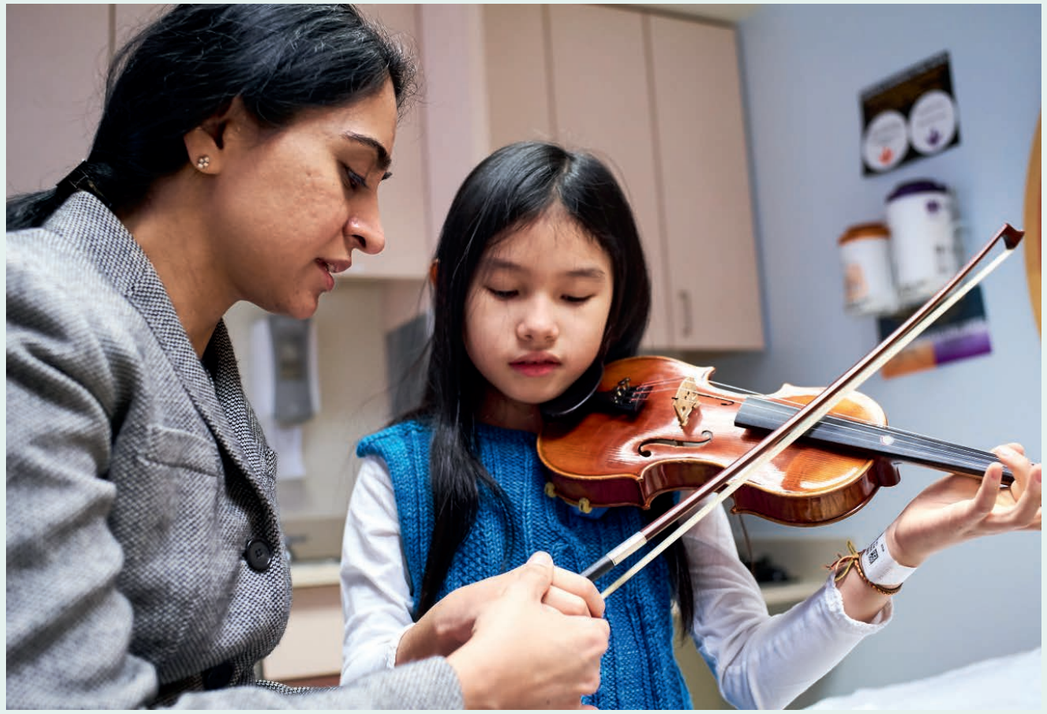
EXPLORING NEW REHABILITATION OPTIONS FOR HEAD AND NECK CANCER PATIENTS

To help bolster the rehabilitative tool kit, Dr. Sokolof and Kenneth S. Hu, MD, associate professor of radiation oncology and otolaryngology—head and neck surgery, are investigating the potential of low-level laser therapy (cold laser therapy) for treating radiation fibrosis and lymphedema in head and neck cancer patients. Dr. Sokolof is also exploring the potential of functional electrical stimulation (e-stim) to help patients with dysphagia, another complication of head and neck cancers. This technique could facilitate laryngeal closure during swallowing through adaptive learning. "Getting these patients swallowing again and off their PEG feeding tubes would be a big breakthrough," says Dr. Sokolof.

Complex Case

Innovative Therapy Restores Mobility, Musical Possibilities for Young Stroke Patient

The translation of cutting-edge research into advanced clinical care has reopened possibilities for a young patient who suffered an idiopathic stroke. With a multimodal rehabilitation plan encompassing innovative muscle training and music therapy, she has returned to playing the music that drives her quality of life.



Preeti Raghavan, MD, and stroke patient, Emma

In July 2018, the nine-year-old girl was in otherwise good health, attending a summer music camp to hone her skills as a violinist and pianist. After falling ill on the playground, she was rushed to the emergency room, where doctors diagnosed a hemorrhagic stroke with severe right-sided weakness. She was transferred to NYU Langone Health for a neurosurgical evaluation, and even though the patient's stroke etiology remained unclear, neurosurgeons ruled out the need for surgery. With close monitoring and anti-seizure medication, the girl's condition stabilized until she could be transferred to inpatient rehabilitative care at Rusk Rehabilitation.

"At first it was a fight for survival, then it shifted to a fight for what mattered most to her: making music. When I first saw her, she had no movement or sensation in her right side; it was completely limp," recalls Preeti Raghavan, MD, the Howard A. Rusk Associate Professor of Rehabilitation Research, vice chair for research, and director of the Division of Motor Recovery Research.

EARLY REHABILITATION IS CRITICAL

The interdisciplinary care team faced a daunting challenge: The dense right-sided hemi-plegia had significantly reduced the patient's prospects of playing the violin again. For such patients, occupational therapy often focuses on compensatory strategies to help the patient independently perform activities of daily living and write with the unaffected hand. The goal of restoring fine motor skills such as playing the piano or violin with both hands can be less realistic. "But we know that the early period is critical, as the brain tries to repair itself, so we gave it our best shot," Dr. Raghavan says.

> "This patient's remarkable progress since her initial presentation is an example of neuroplasticity and what is possible with advanced rehabilitative care."
>
> **—Preeti Raghavan, MD**

ENHANCING MOTIVATION WITH MUSIC

Physiatrist Louis Roi Oliver Dizon, MD, clinical instructor of rehabilitation medicine, arranged for a music therapist to bring in a keyboard so the patient could begin playing it with her unaffected left hand. In addition to physical and occupational therapy, frequent movement of the patient's paralyzed right arm would be critical to stimulate neurological connections and restore natural motion.

INNOVATIVE APPROACH ACCELERATES PATIENT'S PROGRESS

The patient's rehabilitation plan also included use of an innovative video game device, the Bimanual Arm Trainer. Renat R. Sukhov, MD, clinical associate professor of rehabilitation medicine and interim medical director of the Pediatric Rehabilitation Service, is the principal investigator on a study that provides the Bimanual Arm Trainer to children at home to enable arm training after school hours. Invented by Dr. Raghavan and neuro-physiologist Donald J. Weisz, PhD, the device allows a patient's arms to make mirrored movements. "With the device, the two arms are connected so the affected arm moves with the unaffected arm. In this way, the patient can get a lot of movement training for the affected arm outside her therapy sessions with very little setup, and the video game keeps the training engaging," Dr. Raghavan explains.

For this patient, Dr. Sukhov facilitated the use of the Bimanual Arm Trainer on the inpatient unit. As the girl's parents used the device with her each day, they noted she began to regain more feeling and movement, which enabled her therapists to advance their work with her during sessions.

MULTIMODAL REHABILITATIVE CARE YIELDS RAPID RECOVERY

The regimen elicited dramatic improvement in one month. "At first, this patient couldn't move the device with her affected arm or tolerate it for more than ten minutes," Dr. Raghavan says. "By the time she was discharged, she had independent movement at her affected shoulder and elbow and sensation in her upper arm." Soon, she began to move her violin bow with the aid of a prosthesis attached to her forearm.

The team continued working with the girl as an outpatient, helping her to walk with the aid of a brace and intensive therapy with a Lokomat® body weight–supported treadmill, and using a Hocoma Armeo® device to train her arm movements. However, her muscles were becoming stiff at the wrist and fingers, and she wasn't able to hold the bow in her hand.

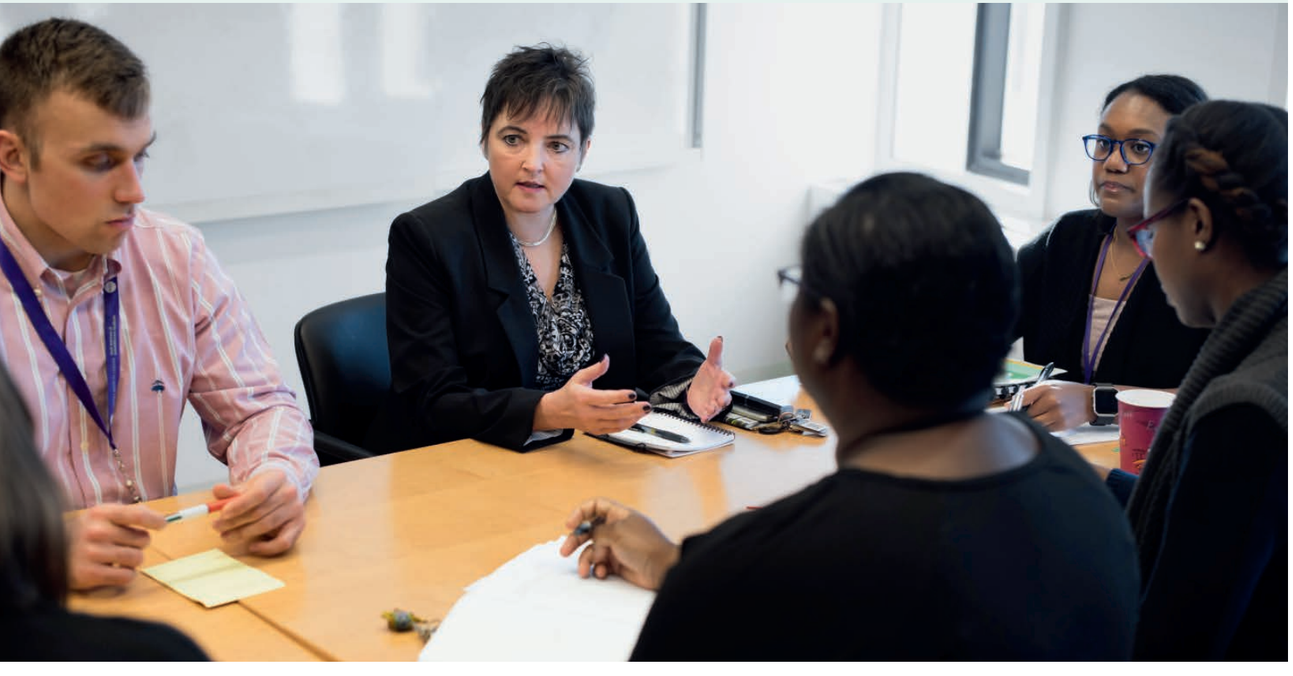
To help relieve the muscle stiffness in the patient's wrist and fingers, Dr. Raghavan administered the viscosity-decreasing enzyme hyaluronidase as an off-label treatment. The very same day, the patient held her violin bow in her right hand for the first time since her stroke.

Today, the patient continues to rebuild and refine her skills at the violin and the piano, and she is knitting with both hands to improve dexterity. "This patient's remarkable progress since her initial presentation is an example of neuroplasticity and what is possible with advanced rehabilitative care," says Dr. Raghavan.

Disclosure: Preeti Raghavan, MD, is co-founder of Mirrored Motion Works, Inc and Movease, Inc. NYU Langone Health has filed a patent on use of hyaluronidase for muscle stiffness. The use of hyaluronidase for muscle stiffness is an off-label clinical treatment.

Traumatic Brain Injury Researchers Probing Differential Patient Outcomes Due to Care Disparities

Research suggests that racial and ethnic minorities have less access to healthcare resources after a traumatic brain injury (TBI), including a longer lag time before they receive inpatient rehabilitation. The disparities remain even when the patients are more seriously injured and even after researchers have accounted for socioeconomic status.



Tamara Bushnik, PhD, FACRM (Photo credit: Karsten Moran)

The diverse patient population at NYU Langone Health is allowing Tamara Bushnik, FACRM, associate professor of rehabilitation medicine, to study these disparities and differential outcomes in cultural, ethnic, and racial groups. Over the past six years, Dr. Bushnik and collaborators have enrolled nearly 300 patients, primarily from Bellevue, in the Traumatic Brain Injury Model Systems (TBIMS) program. "We're using the diversity of New York to examine differences in the experience of living with a chronic traumatic brain injury," she says.

Dr. Bushnik and colleagues will use a series of outpatient and community-based interviews to help them develop educational materials and resources tailored to patients with TBI, their caregivers and clinicians, and distinct populations that may experience obstacles to receiving care and services.

STUDYING TBI'S EFFECT ON MENOPAUSE AND EMOTIONAL PROCESSING

As part of developing the TBIMS program, Dr. Bushnik's team is participating in two multicenter module projects that are tapping into the national database. One project, led by the Detroit Medical Center Rehabilitation Institute of Michigan, is studying menopause in women who have had a moderate to severe TBI. Researchers will use an online survey to ask a cohort of perimenopausal and menopausal women with TBI about their symptoms and experiences and compare the responses with those of age-matched men and women who have not had a TBI. "TBI could exacerbate or change menopause symptoms, or menopause could exacerbate TBI symptoms," Dr. Bushnik says.

The other project, led by Indiana University, is investigating the possible contribution of TBI to alexithymia, in which altered emotional processing leads to an inability to recognize one's own or others' emotions. Although alexithymia has been widely documented, few outpatient rehabilitation programs have specifically addressed the phenomenon. For participants in the TBIMS program, Dr. Bushnik's team and the project collaborators are administering a questionnaire designed to help diagnose alexithymia's severity.

"We want to see how having alexithymia may or may not affect a patient's outcome at year 1 and year 2 after a traumatic brain injury," she says. Negative effects could be due to a lack of community integration, an inability to carry out the TBI rehabilitation with family and friends, or other factors. To provide a more complete view of the consequences of the injury, the team will interview each patient's primary caregiver or significant other to get their perception of how the patient's emotional processing has changed and how the alexithymia may have affected them as well.

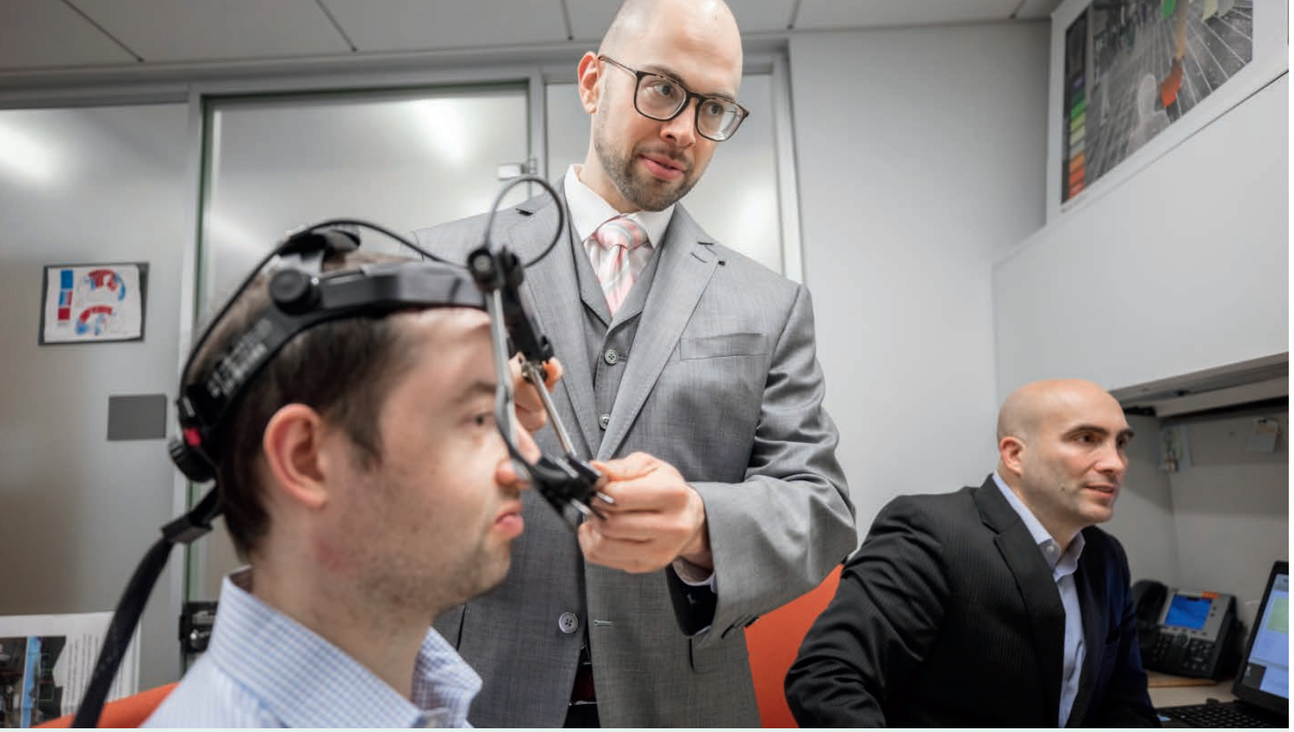
295

PATIENTS

have enrolled in the

NYU Langone Health Traumatic Brain Injury Model Systems

program since its inception in 2012



New Research Helps Stroke Patient Overcome Eye-Hand Incoordination

Independent of other eye and hand challenges, many stroke patients have impaired eye-hand coordination that goes beyond what would be expected from underlying unidimensional sensorimotor deficits, such as hemiparesis. The lab of John-Ross Rizzo, MD, MSCI, assistant professor of rehabilitation medicine and neurology, was instrumental in discovering the phenomenon while studying patients' accuracy when reaching for objects.

John-Ross Rizzo, MD, MSCI, and Todd Hudson, PhD

Since then, Dr. Rizzo and colleagues have sought to better understand the individual components of eye-hand control. "We want to know what they mean for a stroke patient in terms of neural processing and what demands they impose on an injured brain," Dr. Rizzo says. "There is a primary problem where you mistime the two movements, and then there is the associated spatial challenge, that is, where you're landing in the space both for the gaze and for the limb."

> "Not only does this system reduce spatial errors in their reaching limb, but it actually improves the eye-hand coordination impairment."
>
> **—John-Ross Rizzo, MD, MSCI**

To help stroke patients overcome this impairment, Dr. Rizzo's lab is developing a type of biofeedback that provides them with visuospatial cues in real time. The technology, which resembles a video game, uses computer prompts as a patient looks at an object across a table and reaches for it. Precise measurements can detect when the person's visual system is off target, meaning his or her gaze is not aligned with the center of the target, and biofeedback on eye movement errors can indicate the extent of the inaccuracy on a trial-to-trial basis. "What if we actually gave you eye movement error feedback and it could serve as a spatial guidance system for error correction, cueing you to pay attention to your eye movements?" he asks.

To find out, Dr. Rizzo's team tested its feedback system on a dozen stroke patients. "Not only does the system reduce spatial errors in their reaching limb, but it actually improves the eye-hand coordination impairment," Dr. Rizzo says. "It helps patients resynchronize those two movements." The improvement, he says, starts to approach the way healthy volunteers perform the task. The research, presented at an international eye movement conference in Italy in 2018, will be written up in the journal *Progress in Brain Research*.

John-Ross Rizzo, MD, MSCI, Awarded Deborah L. Wilkerson Early Career Award

In more than a dozen publications over the past year, John-Ross Rizzo, MD, MSCI, has reported on advances in research areas ranging from stroke rehabilitation and concussion biomarkers to technology that aids in visual impairment. In recognition of Dr. Rizzo's many contributions, the American Congress of Rehabilitation Medicine honored him with the 2018 Deborah L. Wilkerson Early Career Award.

New Research Helps Stroke Patient Overcome Eye-Hand Incoordination

TEDx Talk Illuminates Powerful New Technology for the Visually Impaired

In a featured talk at the 8th Annual TEDxNYU Conference in 2018, Dr. Rizzo shared his vision of a future in which new tools help people overcome their visual disabilities. Dr. Rizzo, who is legally blind, often relies on a hand-squeeze code with his wife to help him detect and navigate environmental hazards. Combining his personal experience with his expertise, he is working to develop advanced wearable technology that incorporates belt-based touch codes and audio headsets to provide ultrasensitive navigational aids to others who are visually impaired.

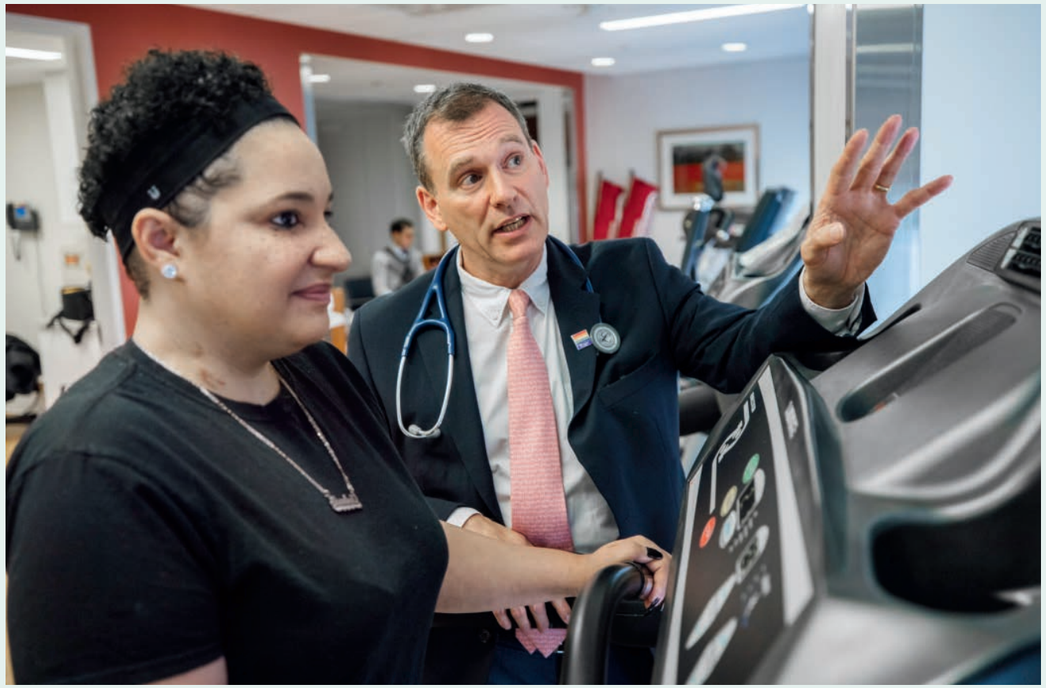
John Ross Rizzo, MD, MSCI, presenting at 2018 TedxNYU conference.

Using a prototype book bag-like device outfitted with sensors and computers, Dr. Rizzo simulated how the new technology can act like a digital power tool or a cognitive orthotic and empower a visually impaired person on a trip through a grocery store. Similar technology being developed by Dr. Rizzo's lab in partnership with the NYU Tandon School of Engineering, called Cross-Safe, can detect when a stoplight is red or green to help people safely cross an intersection. (Although audible pedestrian signals are becoming more widespread, their installation has nevertheless been extremely slow.) Cross-Safe technology already accurately detects and recognizes 96 percent of red/green light pedestrian signals across New York City, greatly improving accessibility.

Complex Case

Aerobic Exercise Plays a Critical Role in Rehabilitation After Stroke and Heart Transplant

Traditional rehabilitation models often do not incorporate aerobic exercise as a core component. Jonathan H. Whiteson, MD, associate professor of rehabilitation medicine and vice chair for clinical operations, believes the models that do include aerobic exercise can yield dramatic improvements, even in highly complex cases.



Jonathan H. Whiteson, MD, and heart transplant patient, Sabrina Soto

Complex Case: Aerobic Exercise Plays A Critical Role in Patient's Rehabilitation After Stroke and Heart Transplant

For one such case, doctors at NYU Langone Health initially diagnosed a 32-year-old woman with viral cardiomyopathy. Her deteriorating condition led to heart failure, and doctors listed her for a heart transplant. In the interim, cardiologists implanted a defibrillator and a left ventricular assist device (LVAD), but her case was further complicated by a significant right middle cerebral artery (MCA) stroke prior to her transplant.

Rusk Rehabilitation was involved with her inpatient care every step of the way, including providing bedside physical and occupational therapy to help her gain strength prior to the LVAD placement. In April 2018, after the patient's post-stroke condition had stabilized, Nader Moazami, MD, professor of cardiothoracic surgery and surgical director of Heart Transplantation and Mechanical Circulatory Support at the NYU Langone Transplant Institute, successfully performed a heart transplant.

One month later, the patient was referred to Rusk Rehabilitation and enrolled in its inpatient cardiac rehabilitation program. With speech and cognitive therapy and basic range of motion and strength therapy, the patient eventually graduated to treadmill and bicycle-based aerobic exercise as a key element of her rehabilitation.

> "There's a growing amount of evidence that from a cellular level to an organ system/physiological level, aerobic exercise is a key to a patient's rehabilitation and may make a tremendous difference in the course of disease."
>
> **—Jonathan H. Whiteson. MD**

This exercise regimen can do far more than strengthen weak muscles and improve endurance after a disease or injury, Dr. Whiteson says. "At a neurochemical level and a cellular level, aerobic exercise enhances the traditional rehabilitation recovery rate," he says. It also provides significant cognitive benefits. Accordingly, he and colleagues are working to expand the role of aerobic exercise, not just in cardiac and pulmonary rehabilitation, but in rehabilitation across the disease spectrum. "There's a growing amount of evidence that from a cellular level to an organ system/physiological level, aerobic exercise is key to a patient's rehabilitation and may make a tremendous difference in the course of disease: in cancer, in brain injury, in stroke, and so on," he says.

ENGAGING REHABILITATION PATIENTS FOR LONG-TERM RECOVERY

Dr. Whiteson says the inpatient referral to Rusk played a major role in the patient's impressive recovery. The heart transplant had left her with generalized weakness, in addition to her left-sided weakness from the stroke and mild to moderate confusion and agitation. Cardiac rehabilitation improved her general weakness, and stroke rehabilitation improved her left-sided strength and coordination. She also received cognitive rehabilitation through psychological, speech, occupational, and physical therapy.

In particular, though, the patient made significant strides in her cognitive, focal, and generalized weakness through daily aerobic exercise, which was gradually increased in both duration and intensity, Dr. Whiteson says. "She did so well that she was able to continue her rehabilitation as an outpatient."

Discharged in September 2018, the patient is continuing in Rusk's outpatient cardiac rehabilitation program to fully regain her strength and cognitive abilities, and has markedly improved her physical aerobic conditioning and endurance on a bicycle, a treadmill, and other aerobic machines. Dr. Whiteson says the patient has done so well that she is now considered independent and ready to resume a normal life.

In an effort to keep such patients engaged well beyond their graduation from cardiac rehabilitation, Dr. Whiteson and colleagues are developing an online educational program that will help physiatrists maintain a post-rehabilitation relationship with them by sending them regular advice, videos, and articles on nutrition, exercise, stress management, and other facets of a sustainable, heart-healthy lifestyle. To create this program, the team is collaborating with The Monday Campaigns, a nonprofit public health initiative that delivers messages and encouragement every Monday morning.

Kimberly S. Glassman, PhD, RN, NEA-BC, the Lerner Director for Health Promotion, is spearheading the initiative at NYU Langone, which has begun with cardiac rehabilitation patients and includes a study to examine both the uptake and the impact of the initiative.

NYU Langone's integrated team approach to rehabilitation, representing multiple specialties and disciplines, is helping the medical center set the pace in delivering exemplary outcomes for the most complex and vulnerable patients, says Dr. Whiteson. The heart transplant and stroke patient's remarkable recovery, for example, was not where her improvement or NYU Langone's involvement ended. A Rusk vocational counselor is now working with her to help her retrain and reenter the workforce.

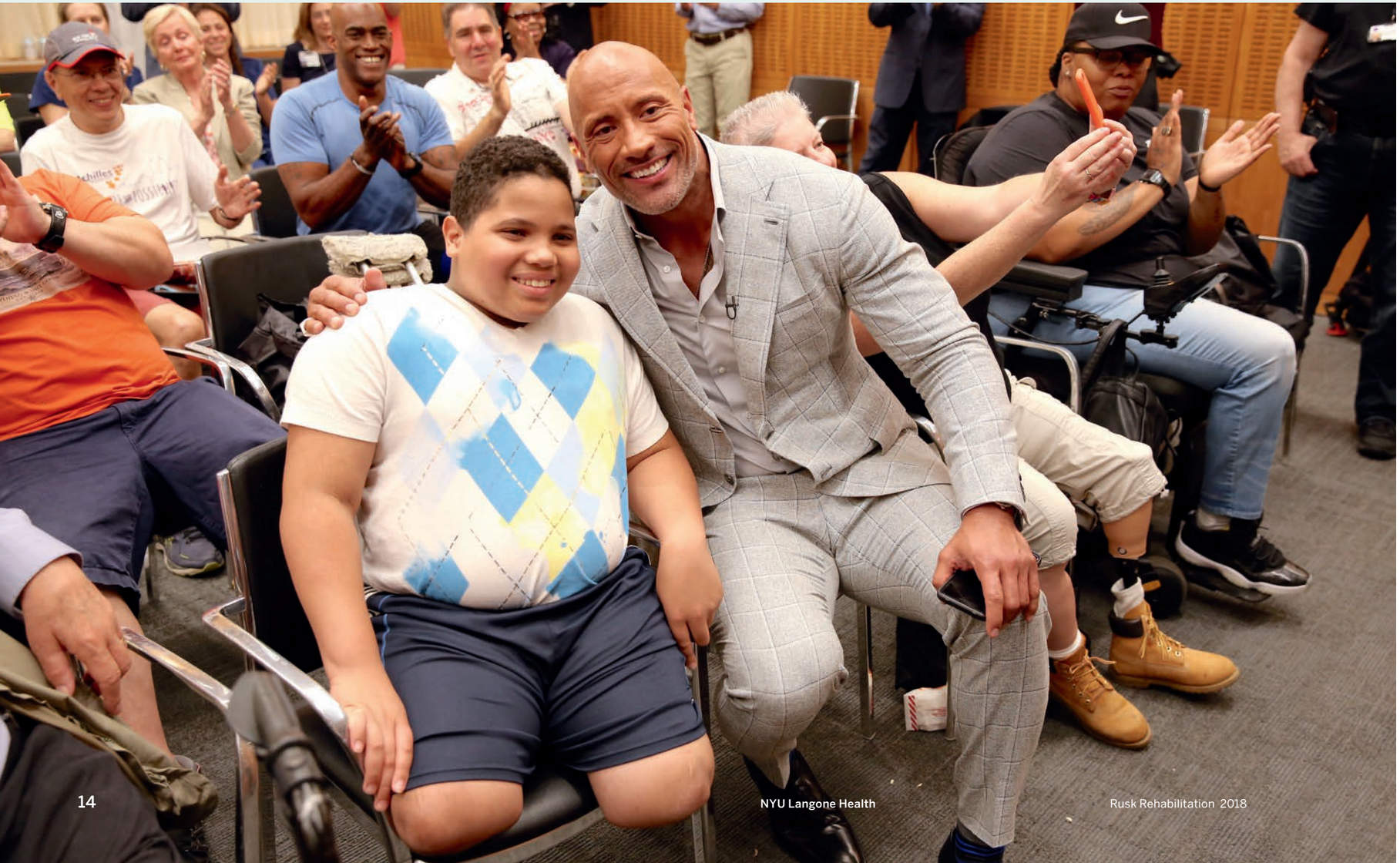
Establishing an Aerobic Exercise Research Community

With the 2018 American Academy of Physical Medicine and Rehabilitation Annual Assembly as a springboard, Dr. Whiteson has begun creating a research community to study the role and value of aerobic exercise in recovery and rehabilitation. Concurrently, Rusk's National Advocacy and Program Innovation Committee is helping to identify, research, and harness innovative technology and health interventions to further develop the cardiac rehabilitation program.

Ana M. Mola, PhD, RN, clinical assistant professor of rehabilitation medicine, is president-elect of the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR). To aid the committee's goal of improving referral rates for cardiac rehabilitation, Dr. Mola, Dr. Whiteson, and Gregory J. Sweeney, DPT, clinical instructor of rehabilitation medicine, have contributed to a national initiative led by the Centers for Disease Control and Prevention (CDC) and the AACVPR: The Cardiac Rehabilitation Change Package, called Million Hearts, has set a goal of preventing 1 million cardiac events by 2021 through enhanced referral to cardiac rehabilitation.

Dr. Whiteson says one key to attaining that goal is educating potential referring physicians, such as cardiologists and primary care doctors, about evidence that shows that cardiac rehabilitation reduces readmission rates, recurrent cardiac events, healthcare expenditures, and the death rate among cardiac disease patients. The initiative will also create an automatic referral system embedded in electronic health records, in which a heart attack, transplant, or other qualifying diagnosis will trigger a default referral to cardiac rehabilitation.

Dwayne "The Rock" Johnson Pays Surprise Visit to Amputees at Rusk Rehabilitation



A long-standing aim of Rusk Rehabilitation physiatrists has been to heighten public awareness about limb loss and dispel the myth that amputees have diminished potential. At a private event, actor Dwayne "The Rock" Johnson helped deliver that message during a surprise visit to Rusk patients and their families after a private screening of his summer blockbuster, *Skyscraper*.

In the movie, Johnson plays a former special operations agent whose lower leg was amputated after an injury in the line of duty. Guests for the screening included current and former Rusk Rehabilitation patients, members of Rusk's Learning and Encouragement for Amputees with and without Prosthetics (LEAP!) support group, and members of the New York City chapter of Achilles International, which includes athletes with disabilities.

> "The true heroes tonight are here in this room. You show me every single day all the abilities you have."
>
> **—Steven R. Flanagan, MD**

Dr. Flanagan, as well as Jeffrey M. Cohen, MD, clinical professor of rehabilitation medicine and medical director of Medically Complex Rehabilitation Service, spoke briefly.

Dr. Cohen thanked Johnson for the movie and for coming to the event. "Amputee awareness is something we've been advocating for years, and this movie will do a lot for that," he said. It's the first blockbuster action movie to have an amputee as the lead character.

Dr. Flanagan said the movie offered a "great opportunity" to depict someone who has lost a limb as a hero. "But the true heroes tonight are here in this room," he told audience members. "You show me every single day all the abilities you have."

Dwayne "The Rock" Johnson surprises limb loss patients at Rusk Rehabilitation

Rusk Rehabilitation 5th Annual Research Symposium

May 28, 2019
at 12:00 pm

Join us for a day of poster sessions, technical exhibits, and lectures on advances being made at Rusk.

LOCATION
NYU Langone Health
Farkas Auditorium
550 1st Avenue
New York, NY 10016

RSVP
linda.yuen-moy@nyulangone.org

CALLING ALL NOMINATIONS
The 2019 Rusk Award for Leadership and Innovation. Nominate someone you know who is board-certified in PM&R, is highly innovative and has the potential for clinical impact.

NOMINATION DEADLINE
February 28, 2019

Continuing Medical Education: Spring and Summer 2019 Courses

MARCH 18 – 23

44th Annual Comprehensive Review of Physical Medicine and Rehabilitation

APRIL 26

Injury Prevention, Management and Performance Improvement of the Running Athlete: Translating Evidence into Clinical Practice

JUNE 10 – 12

Sports Medicine Symposium: The Modern Athlete

For more information go to **med.nyu.edu/cme**

Awards & Recognition

AWARDS

Amit K. Bansal, DO, instructor of rehabilitation medicine, received an NYC Health + Hospitals Doctors Day Award for his work at NYC Health + Hospitals/ Gouverneur.

Sonya Kim, PhD, research assistant professor of rehabilitation medicine, received the Women in Neurodegenerative Disease Rehabilitation Science Award from the American Congress of Rehabilitation Medicine (ACRM).

Christopher L. Kyriakides, DO, instructor of rehabilitation medicine, received the NYU Langone Founders Award.

John-Ross Rizzo, MD, MSCI, assistant professor of rehabilitation medicine and neurology, received the Deborah L. Wilkerson Early Career Award from ACRM, and was a PhyzTalk finalist for the American Academy of Physical Medicine and Rehabilitation.

Jonathan H. Whiteson, MD, associate professor of rehabilitation medicine, received NYU Langone's Marion Frauenthal Sloane Clinical Research Award.

PROMOTIONS

Preeti Raghavan, MD, was appointed the Howard A. Rusk Associate Professor of Rehabilitation Research.

Jonathan H. Whiteson, MD, was promoted to associate professor, rehabilitation medicine.

NYU Langone Health

BEST HOSPITALS U.S.News HONOR ROLL 2018-19

#15

IN THE NATION
and nationally ranked in 12 specialties

BEST GRAD SCHOOLS U.S.News MEDICAL RESEARCH 2019

#3

IN THE NATION
Best Medical Schools for Research

Bernard A Birnbaum, MD
Quality Leadership Award
2018 Winner
vizient.

5

CONSECUTIVE YEARS
of top ranking for overall patient safety and quality of care

ANNOUNCING

Tuition-Free Initiative Addresses High Student Debt

NYU School of Medicine announced in August 2018 that it will begin offering full-tuition scholarships to all current and future students in its MD degree program regardless of need or merit—a bold effort to simultaneously address the rising costs of medical education and still attract the best and brightest students to careers in medicine. "This decision recognizes a moral imperative that must be addressed, as institutions place an increasing debt burden on young people who aspire to become physicians," says Robert I. Grossman, MD, the Saul J. Farber Dean of NYU School of Medicine and CEO of NYU Langone Health.

(Photo credit: Juliana Thomas Photography)

Visit **med.nyu.edu/school** for more information.

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For more information about our physicians, services, and locations, visit **nyulangone.org**

NYU Langone Health

Top 10

IN THE COUNTRY FOR REHABILITATION

in *U.S. News & World Report*'s "Best Hospitals" since it began its rankings

One of 16

TRAUMATIC BRAIN INJURY MODEL SYSTEMS OF CARE

in the country

100,000+

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