



**Mount
Sinai**

inside

A PUBLICATION OF THE MOUNT SINAI HEALTH SYSTEM

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The Mount Sinai Hospital Ranks Among Top in Nation

The Mount Sinai Hospital has been ranked No. 15 out of approximately 5,000 hospitals across the nation in the just-released 2016-2017 *U.S. News & World Report* "Best Hospitals" guidebook. Significantly, The Mount Sinai Hospital is one of only 20 hospitals nationwide to be named to the "Honor Roll," which recognizes outstanding performance across multiple areas of care.



According to the rankings data, seven Mount Sinai Hospital departments ranked among the Top 20 nationally in their specialties, and four others were among the Top 50. The New York Eye and Ear Infirmary of Mount Sinai was also ranked nationally, No. 10 in Ophthalmology.

"We are extremely proud of our *U.S. News* rankings, especially this year, when Mount Sinai also excelled in the 'Procedure and Condition Ratings,' a separate, data-driven ranking of nine common procedures and conditions that formed an important component in Honor Roll calculations," says Kenneth L. Davis, MD, President and Chief Executive Officer of the Mount Sinai Health System.

continued on page 3 >

RANKINGS BY SPECIALTY ▶ 2016-2017

The Mount Sinai Hospital:

Geriatrics	3
Gastroenterology & GI Surgery	7
Cardiology & Heart Surgery	8
Diabetes & Endocrinology	11
Nephrology	11
Neurology & Neurosurgery	12
Ear, Nose & Throat	20
Urology	29
Cancer	38
Orthopaedics	42
Pulmonology	45

New York Eye and Ear Infirmary of Mount Sinai:

Ophthalmology	10
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An Innovative New System for Characterizing Cancer



Carlos Cordon-Cardo, MD, PhD, Chair of the Lillian and Henry M. Stratton-Hans Popper Department of Pathology

A novel method for characterizing prostate cancer that uses computer vision and artificial intelligence to help determine the best course of treatment for each patient is being rolled out this summer by the Lillian and Henry M. Stratton-Hans Popper Department of Pathology at the Icahn School of Medicine at Mount Sinai.

The platform, called Precise Medical Diagnosis™ or Precise MD, has been under development at Mount Sinai for more than three years by a team of physicians,

scientists, mathematicians, engineers, and programmers. The proprietary diagnostic system creates detailed, specific data about the patient's cancer cells using multispectral fluorescent imaging to evaluate biomarker status and architectural patterns and then uses sophisticated computer analytics to combine and create predictive models.

"Our goal is to improve the way we stratify patients into treatment groups," says Gerardo Fernandez, MD, Associate Professor of Pathology, and Genetics and

continued on page 4 >

Detecting and Tracking Repetitive Traumatic Brain Injury in Patients With a History of Concussions

Researchers at the Icahn School of Medicine at Mount Sinai are pioneering the use of a new imaging agent used with positron emission tomography (PET) to detect and track the progression of repetitive traumatic brain injury in patients with a history of concussions.

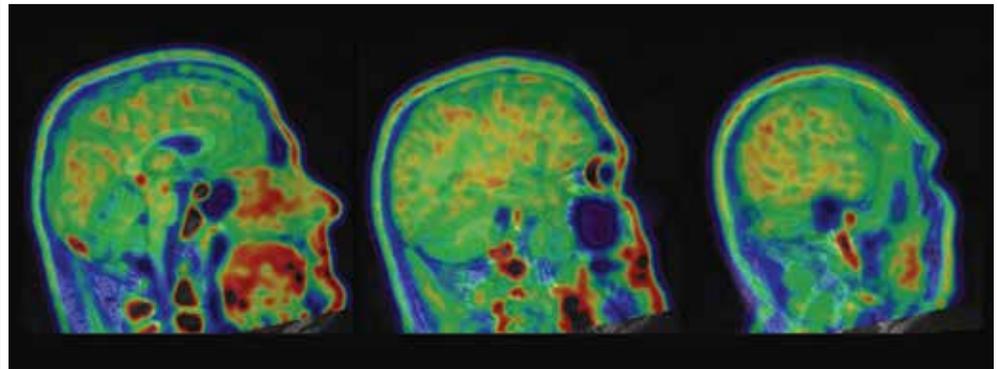
The ability to actually see chronic traumatic encephalopathy (CTE) in living patients is particularly significant because the neurodegenerative disorder—associated with repetitive traumatic brain injury in athletes and soldiers—can only be definitively diagnosed in brain tissue after they are deceased.

“This has the potential to be used as a reliable biomarker,” says Sam Gandy, MD, PhD, Director of the Center for Cognitive Health and NFL Neurological Care at the Icahn School of Medicine at Mount Sinai. “If we can screen people who are exposed to CTE and find they have this pathology, they may want to curtail head injury exposure and arrest its progression.” In addition to including symptoms such as irritability and extreme mood swings, CTE is believed to be a precursor to various neurodegenerative diseases, including Alzheimer’s, Parkinson’s, and Lou Gehrig’s diseases.

Dr. Gandy and Dara L. Dickstein, PhD, Assistant Professor of Neuroscience, and Geriatrics and Palliative Medicine, recently coauthored a proof-of-concept study in *Translational Psychiatry* that used the new PET agent, or ligand, to examine a 39-year-old retired National Football League (NFL) player who had experienced 22 concussions. The patient exhibited agitation, impulsivity, sensitivity to light, periods of severe rage, and a decline in executive functioning, processing speed, and fine motor skills, as well as difficulty with working memory.

With the new ligand, Drs. Gandy and Dickstein were able to see evidence of CTE in the patient, which appeared as deposits of sticky tau protein in the brain that formed an irregular pattern of clumps rather than a normal pattern of strings. Pathologists believe a pattern of tau clumping is specific or “pathognomonic” for CTE. The disease involves widespread axonal disruption and the eventual degeneration of the neocortex, hippocampus and other limbic structures, and basal forebrain.

A link between brain injury and long-term health has gained greater attention in recent years, helped along by evidence of neurofibrillary tangles of tau protein, or tauopathy, that has been clinically confirmed in the postmortem brain tissue of former athletes and soldiers with a history of multiple head traumas.



Yellow-red splotches in the brain of a former NFL player (seen from three different angles) may indicate the presence of the tau protein thought to be important in the development of chronic traumatic encephalopathy, a neurodegenerative disease linked to exposure to multiple concussions.

“If we can screen people who are exposed to CTE and find they have this pathology, they may want to curtail head injury exposure and arrest its progression.”

– Sam Gandy, MD, PhD

Under the leadership of Drs. Gandy and Dickstein, and with funding from the Alzheimer’s Drug Discovery Foundation, Mount Sinai is one of the few medical centers researching the use of the new ligand in living patients who are believed to have CTE. The Mount Sinai team is currently studying 24 patients and plans to establish a clinical trial early next year that will employ the new ligand to identify CTE patients who might respond to an antitauopathy medicine manufactured by Cortice Biosciences Inc. The medicine is currently being studied at other medical centers for the treatment of Alzheimer’s disease, progressive supranuclear palsy, and corticobasal degeneration.

Whereas Alzheimer’s disease occurs in older patients who may be seen in their last years of life and then autopsied once they pass away, patients with CTE are often younger, making it more challenging for researchers to confirm their diagnoses through neuroimaging.

“This research is in its infancy,” says Dr. Dickstein. “Can the pathology be reversed or halted? This is something we have yet to determine, and these new tauopathy PET scans may be able to help in this endeavor.”

Dr. Gandy adds, “Until this new ligand was developed, there had been nothing available to monitor whether any therapeutic intervention might modify the tauopathy of CTE.”

Mount Sinai Doctors East 85th Street Facility Opens

A recent reception and ribbon-cutting ceremony marked the opening of Mount Sinai Doctors East 85th Street, the first multispecialty Mount Sinai Doctors Faculty Practice on the Upper East Side. The office occupies five floors at 234 East 85th Street.

The facility, which offers a wide range of coordinated primary and specialty care services, is staffed by primary care physicians, obstetricians/gynecologists, pediatricians, dermatologists, ophthalmologists, cardiologists, rheumatologists, endocrinologists, thoracic and vascular surgeons, pediatric otolaryngologists, facial plastic and reconstructive surgeons, rhinologists, and sinus surgeons. Oral maxillofacial surgery, cardiac rehabilitation, wellness, and nuclear cardiology programs will begin before the end of the year, and an ambulatory surgery center is scheduled to open in 2017.

“As health care shifts more and more toward the ambulatory setting, we need to create space to accommodate the growth of the Faculty Practice and programs that developed from combining with the former Continuum Health Partners hospitals,” said Michael Schaffer, Chief Operating Officer, Mount Sinai Doctors Faculty Practice. “This site conveniently provides primary care and procedure-based specialty care in an office setting.”

Burton P. Drayer, MD, Chief Executive Officer, Mount Sinai Doctors



Dennis S. Charney, MD, Anne and Joel Ehrenkranz Dean, Icahn School of Medicine at Mount Sinai and President for Academic Affairs, Mount Sinai Health System, center, with Burton P. Drayer, MD, left, and Michael Schaffer.

Faculty Practice, added: “The symbiotic partnership between our hospitals and the Icahn School of Medicine at Mount Sinai, which makes Mount Sinai so unique, will increasingly encompass ambulatory outpatient care, as well as the traditional hospital inpatient setting. I thank Mike Schaffer and his team, and our dedicated Department leadership, providers, and staff, for making the East 85th Street offsite facility such a beautiful, user-friendly space for our patients and staff.”

› The Mount Sinai Hospital Ranks Among Top in Nation *(continued from page 1)*

The Mount Sinai Hospital received Top 20 rankings in the following specialties:

- Geriatrics, No. 3
- Gastroenterology & GI Surgery, No. 7
- Cardiology & Heart Surgery, No. 8
- Diabetes & Endocrinology, No. 11
- Nephrology, No. 11
- Neurology & Neurosurgery, No. 12
- Ear, Nose & Throat, No. 20

Additionally, the following specialties received rankings:

- Urology, No. 29
- Cancer, No. 38
- Orthopaedics, No. 42
- Pulmonology, No. 45

Eight of the specialties improved their rankings from 2015-2016: Cancer; Diabetes & Endocrinology; Ear, Nose & Throat; Gastroenterology & GI Surgery; Nephrology; Neurology & Neurosurgery; Orthopaedics; and Pulmonology.

The Hospital was also recognized as “high performing” in Gynecology, Psychiatry, and Rehabilitation.

“These national rankings are the result of the exceptional care and

unparalleled dedication to quality, safety, and service by The Mount Sinai Hospital staff, and I remain confident that we will continue to receive high recognition in the years to come,” says David L. Reich, MD, President and Chief Operating Officer, The Mount Sinai Hospital.

Along with the New York Eye and Ear Infirmary of Mount Sinai, hospitals of the Mount Sinai Health System that received national recognition in the “Best Hospitals” rankings were:

- Mount Sinai Beth Israel, ranked as “high performing” in Neurology & Neurosurgery.
- Mount Sinai St. Luke’s/Mount Sinai West, ranked as “high performing” in Neurology & Neurosurgery, and Nephrology.

“Over the last few years, the Mount Sinai Health System has revolutionized delivery of care and scientific discovery, all to transform medicine and benefit our patients,” says Dennis S. Charney, MD, Anne and Joel Ehrenkranz Dean, Icahn School of Medicine at Mount Sinai and President for Academic Affairs, Mount Sinai Health System. “Excellence in the rankings is a reflection upon our outstanding School of Medicine faculty who staff our hospitals and who will continue to build on these achievements.”

Go to <http://health.usnews.com/best-hospitals> to view the 2016-2017 edition of “Best Hospitals.”

Mount Sinai Expands Neurosurgery Care to Brooklyn

Neurosurgery patients at Mount Sinai Brooklyn can now receive in-depth evaluations, and local treatment in many cases, without having to travel into Manhattan. Ronit Gilad, MD, Chief of the Neurosurgical service at Mount Sinai Brooklyn, and Soriaya Motivala, MD, Co-Chief of the service, are leading the effort. Both are Assistant Professors of Neurosurgery at the Icahn School of Medicine at Mount Sinai and former Mount Sinai Neurosurgery residents.

The general brain and spine procedures now available include chiari malformation, cerebrospinal diversions, intracranial hemorrhage evacuation, intrathecal pumps for pain and spasticity, spinal cord and vagal nerve stimulation, cervical and lumbar disc replacement procedures, minimally invasive spine surgeries, microdiscectomies, and

spinal fusions. A full range of outpatient Neurosurgery consultative services are available, as well as emergency room and inpatient consults. Drs. Gilad and Motivala will have office hours at Mount Sinai Brooklyn on Tuesdays and Thursdays and will continue to perform more complex surgeries at Mount Sinai Beth Israel.

“I am exceptionally pleased with the achievements of Drs. Gilad and Motivala,” says Joshua B. Bederson, MD, Professor and Chair of the Department of Neurosurgery at the Mount Sinai Health System. “Not only were they trained in our highly respected neurosurgery residency program but they now excel in executing our mission

to deliver exceptional neurosurgery care in diverse communities.”

For patient referrals or to learn more about the Neurosurgery services offered at Mount Sinai Brooklyn, call 718-951-9919.



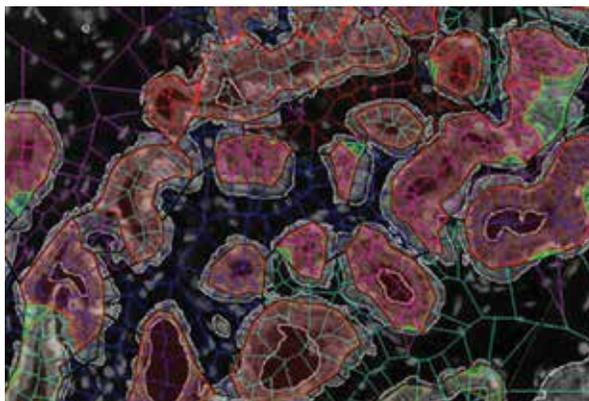
Soriaya Motivala, MD, left, and Ronit Gilad, MD

➤ An Innovative New System for Characterizing Cancer *(continued from page 1)*

Genomic Sciences at the Icahn School of Medicine at Mount Sinai and Director of Precise MD. “By refining the treatment, we can save patients from unnecessary treatments and help improve the entire health care system.”

By combining multiple data sources, the new platform provides a view of cancer that is far more comprehensive than can be seen using conventional microscopes. Ultimately, this multilayered approach to analyzing and characterizing an individual’s prostate cancer may be used by pathologists as a more sophisticated alternative to a traditional grading system such as the Gleason score, which has been used since the 1960s to guide a patient’s treatment options and establish his prognosis.

“Cancer diagnoses are based on pattern recognition. But pattern recognition is imprecise,” says Carlos Cordon-Cardo, MD, PhD, the Irene Heinz Given and John LaPorte Given Professor and Chair of the Department of Pathology at the Mount Sinai Health System. “We have created a Systems Pathology



Advanced mathematical techniques (Delaunay triangulations and Voronoi diagrams seen above) are used to characterize the architecture of prostate cancer.

approach that integrates the patient’s electronic health records, phenotype, and genotype, and overcomes the limitations of earlier technologies. This is truly the next generation in personalized medicine.”

Mount Sinai’s Department of Pathology processes more than 80 million tests a year, making it the largest department of its kind in the country. In its initial phase this summer, Precise MD will offer a test used to analyze patients who have had prostatectomies at the Milton and Carroll Petrie Department of Urology at the Icahn School of Medicine to help determine which of them will likely

have a recurrence of cancer and may need additional therapy, such as chemotherapy.

A second, higher-impact test will follow in 2017, which will be used to characterize prostate cancer in newly diagnosed patients. At that time, Dr. Cordon-Cardo says all prostate cancer patients at Mount Sinai will have the option to receive this test.

In addition to the current efforts in prostate cancer, Precise MD is applying its computer vision and machine learning tools to better characterize breast cancer.

The new platform could eventually be used to characterize many disease states, including melanoma, lung, and colon cancers, and chronic conditions such as inflammatory bowel disease.

As part of the development efforts in breast cancer, Dr. Fernandez’s team is gathering between one and two petabytes of data for its archive and is employing the latest technologies in deep learning and neural networks to analyze data that is not visible to the human eye. “We expect to find features that we don’t even know exist at this point,” says Dr. Fernandez.

Around the Health System

Garth Brooks Makes a Special Visit

The country and pop music star Garth Brooks and his band members paid a special visit in July to the Child Life Zone at the Kravis Children's Hospital at Mount Sinai to talk with pediatric patients and their families, play games, create artwork, and take photos. "The Zone," which provides a fun and friendly environment for therapeutic and educational play activities, opened 10 years ago in partnership with the Garth Brooks Teammates for Kids Foundation and The Troy Aikman Foundation. Mr. Brooks and his band also appeared on a KidZone TV live broadcast, sharing stories and answering questions from pediatric patients in their hospital rooms. "The pure joy, energy, spirit, and warmth that Garth and the band brought to our children, teens, families, and staff was unparalleled,"



says Diane Rode, Director, Child Life and Creative Arts Therapy Department, Kravis Children's Hospital. "We are grateful every day for the power of 'The Zone' in helping us to humanize health care for our seriously ill children and their families."



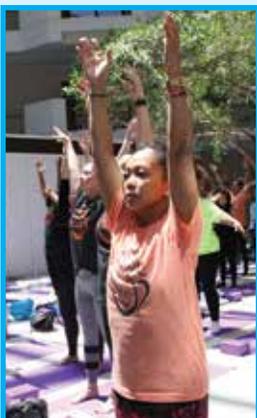
From left: Kelli Schnurman, LCSW, Social Work Program Coordinator, Mount Sinai Health System; Amy Porter-Tacoronte, MBA; Jan Christensen; Herschey McGhee; Alison Snow, PhD, Social Work Supervisor, and Jeremy Winell, MD, Director, Cancer Supportive Services, Mount Sinai Beth Israel Comprehensive Cancer Center West; Daniel M. Labow, MD; and Karen Lee, MSN, FNP-BC.

Celebrating Cancer Survivors

Jan Christensen, a singer/songwriter and lymphoma survivor who was treated at Mount Sinai Beth Israel, entertained 200 guests at Mount Sinai's 19th annual National Cancer Survivors Day® luncheon on Sunday, June 5, at Phillips Ambulatory Care Center. Among the attendees were cancer survivors, their families and friends, and Mount Sinai faculty and staff. Amy Porter-Tacoronte, MBA, Vice President of Oncology Services, Mount Sinai Health System, delivered the keynote address. Speakers included Herschey McGhee, a breast cancer survivor who was treated at Mount Sinai West; Daniel M. Labow, MD, Associate Professor, Surgery, Icahn School of Medicine at Mount Sinai, and Chief, Division of Surgical Oncology, The Mount Sinai Hospital; and Karen Lee, MSN, FNP-BC, Nurse Practitioner, Thoracic Oncology Program, Mount Sinai Beth Israel Comprehensive Cancer Center West.

Promoting Heart Health for Staff

For the third consecutive year, Annapoorna S. Kini, MD, Director of the Cardiac Catheterization Laboratory at The Mount Sinai Hospital, invited Mount Sinai Heart staff and their families to join her for a 5K run. More than 80 employees and their families participated in the event that took place on Saturday, May 21, in Central Park. "It is very important to practice what we preach," says Dr. Kini (shown in photo at right, front row, center). "We tell our patients to exercise in order to be heart healthy. As staff, we need to serve as examples for our patients and make sure that we are heart healthy ourselves." Dr. Kini, who is also Professor of Medicine (Cardiology), additionally encouraged staff from



throughout the Hospital to participate in International Yoga Day on Tuesday, June 21 (left photo), a full-day event that attracted more than 100 individuals and featured meditation, yoga, and talks on nutrition.

SAVE THE DATE

Convocation 2016

Convocation marks the beginning of the academic year for Icahn School of Medicine at Mount Sinai, an event that renews the School of Medicine's commitment to excellence and honors both the accomplishments of Mount Sinai faculty and the dedication of Mount Sinai benefactors. Dennis S. Charney, MD, Anne and Joel Ehrenkranz Dean, Icahn School of Medicine at Mount Sinai and President for Academic Affairs, Mount Sinai Health System, will give the annual State of the School address, and Peter W. May, Chairman, Boards of Trustees, Mount Sinai Health System, will welcome the endowed professors, donors, and audience.

Tuesday, September 27
4:30 pm (Doors Open)
5 pm (Event Start)
Goldwurm Auditorium

20th Annual Advances in Autism Conference

Registration is open for this annual conference hosted by the Seaver Autism Center for Research and Treatment at Mount Sinai. The conference was created to advance the knowledge of practicing psychiatrists, neurologists, psychologists, geneticists, and other health care professionals, as well as neuroscientists, educators, family members, and social workers in accurately recognizing, diagnosing, and treating autism spectrum disorder. The keynote speaker is David Skuse, MD, Professor, Behavioural and Brain Sciences, Institute of Child Health, University College of London, and Honorary Consultant, Developmental Neuropsychiatry, Great Ormond Street Hospital for Children, London. The fee is \$20. To view the conference brochure and register, visit www.seaverconference2016.eventbrite.com. For more information, email: annualconference@seaverautismcenter.org.

Sunday, September 25
9 am – 3:45 pm
The New York Academy of Medicine
1216 Fifth Avenue (at 103rd Street)

Mount Sinai Transformation update

Mount Sinai West will open a new Mount Sinai Doctors Primary Care and Dermatology Faculty Practice site in late 2017.

The new location will be in The Ansonia (see photo), a landmark building at 2109 Broadway between 73rd and 74th Streets, one block from the express subway in the heart of the Upper West Side. The location extends the geographical reach of the Faculty Practice on the West Side and offers easier access for patients. The current Faculty Practice, located on the eighth floor of the Brodsky Building at 425 West 59th Street, will continue to serve patients until the move is completed.



Important Changes to “CHPNET” and “NYEE” Email System Users

Earlier in August, the IT Department began transitioning “@chpnet.org” and “@nyee.edu” email users to a consolidated email infrastructure and unified computer platform known as Active Directory in an effort to further integrate staff and allow for more seamless administrative functions across the Mount Sinai Health System.

What to know:

- Staff who have an email address ending in “@chpnet.org” or “@nyee.edu” will have their email changed to one ending in “@mountsinai.org.”
- The effort is expected to take approximately 18 months to complete.
- All affected staff will be notified 14 days in advance of the migration by the Active Directory Consolidation project team.

Please contact the Active Directory Migration project team with any questions or concerns at ADMigration@mountsinai.org.



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