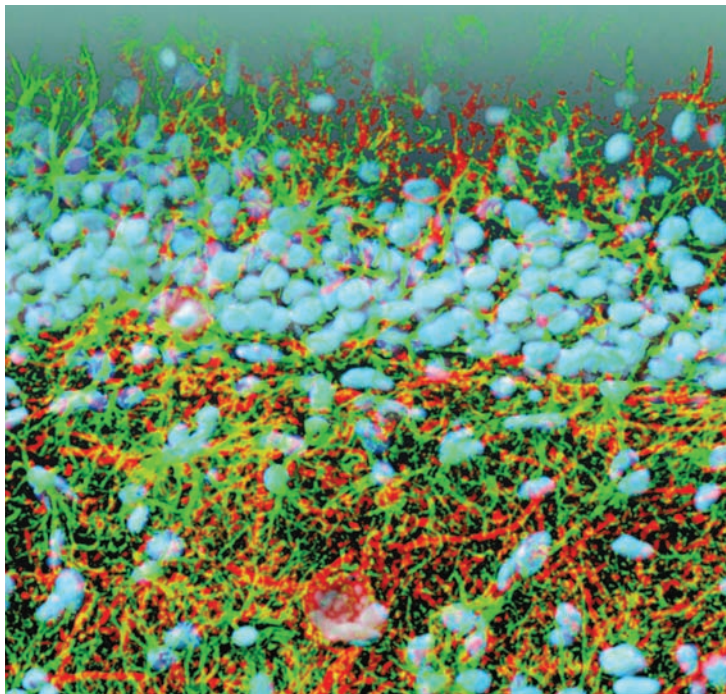


# Mount Sinai inside



In a study, Mount Sinai researchers found that the interaction between brain cells known as astrocytes (stained in green), and neurons (in red), is essential during long-term memory formation. (Cell nuclei are in blue.)

Image of rat hippocampus by Rumana Huq, and visual design by Alberini lab, Mount Sinai School of Medicine; and Laura Gibson, TheVisualMD

## Discoveries in the Formation of Memory

Mount Sinai School of Medicine researchers recently published two significant discoveries about molecular and cellular mechanisms that play a role in long-term memory formation—findings that open up new paths for researching, understanding, and possibly treating cognitive impairments and memory disorders.

“The implications of these data are far-reaching and open new directions of investigating memory loss and forgetfulness in people with cognitive impairment, like those with Alzheimer’s disease, stroke, or dementia,” says Cristina Alberini, PhD, Professor of Neuroscience, the lead researcher on both studies.

In a study published in the January 26, 2011, issue of *Nature*, Dr. Alberini and her research team revealed that a protein, insulin-like growth factor II (IGF-II), enhances long-term memories and makes them also

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## Look inside

New Books From Mount Sinai Authors

Alpha Omega Alpha Ceremony

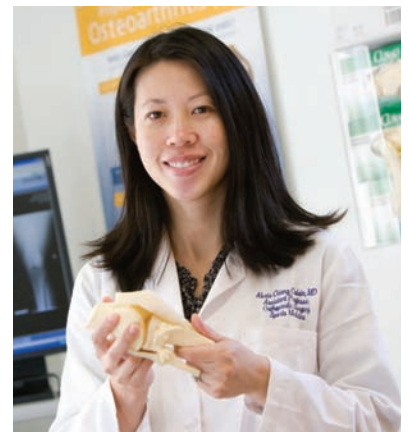
Weight Management Resource Fair

Japan Relief Resources

## Alexis Chiang Colvin, MD, An Emerging Leader

Alexis Chiang Colvin, MD, Assistant Professor of Orthopaedic Surgery, was recently selected to join the American Orthopaedic Association’s prestigious Emerging Leaders Program, a group of young orthopaedists who are expected to have a positive impact on the specialty.

In a letter supporting Dr. Colvin’s selection, Evan L. Flatow, MD, Lasker Professor and Chair of the Leni and Peter W. May Department of Orthopaedic Surgery, called her a “superstar.” He wrote, “Dr. Colvin is a skilled surgeon, an accomplished educator, and possesses tremendous intellect and indefatigable energy.”



Alexis Chiang Colvin, MD

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## New Books from Mount Sinai Authors

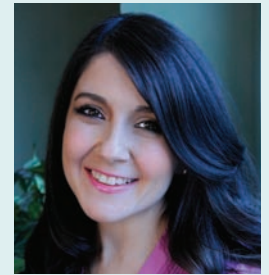
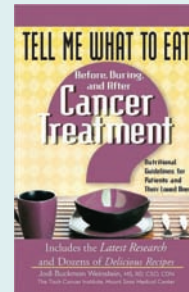
Jodi Buckman Weinstein's recently published book, *Tell Me What to Eat Before, During, and After Cancer Treatment: Nutritional Guidelines for Patients and Their Loved Ones*, was a natural outgrowth of her work as the Clinical Nutrition Coordinator at The Tisch Cancer Institute. "I work with patients every day and I see how cancer treatments affect their eating, appetite, and weight," says Ms. Weinstein, RD, who is a Board Certified Specialist in Oncology Nutrition.

Getting adequate nutrition can be a real challenge for some patients after surgery, as well as during chemotherapy and radiation when they may have persistent nausea, vomiting, or irregular bowel movements. People with head and neck cancer, for example, may have to eat through a feeding tube because they have difficulty swallowing.

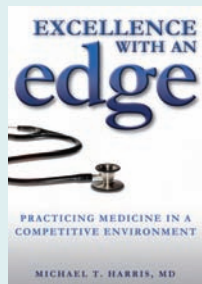
"Depending on what their treatment and side effects are, I give them advice to make the appropriate food choices," says Ms. Weinstein, who provides palatable recipes such as chicken noodle

soup for someone who experiences vomiting, or carrot ginger muffins for someone with nausea. She tells readers what they can expect from each treatment and how to manage their symptoms. Eating the right foods can help patients maintain their energy, decrease their risk of infection, prevent the breakdown of body tissue, and help them heal more quickly.

"I have a list of all the preventive foods as recommended by the different cancer societies," she says. "It comes down to how to incorporate a plant-based diet while maintaining a healthy weight, which is one of the best ways to help prevent cancer."



Jodi Buckman Weinstein, RD



Michael T. Harris, MD

Physicians spend a great deal of time practicing medicine, but if they want to grow their practices they need to understand how to run a business. That is the premise of a recently published book by Michael T.

Harris, MD, Vice Chair of the Department of Surgery at The Mount Sinai Medical Center, titled, *Excellence With An Edge: Practicing Medicine in a Competitive Environment*.

"Taking great care of our patients is just the ticket to entry for our profession. But we also have to keep our doors open and make a living in order to be able to provide the excellent care that we do," says Dr. Harris, an expert in gastrointestinal surgery.

In his book, Dr. Harris lays out the basic financial metrics and terminology that any successful physician must know. He explains how to create a business plan, maximize return on investment, reduce denials by Medicare and Medicaid, and how to track and enhance collections.

The book also guides readers on how to grow their practices by standing out from the competition, and building strong relationships with patients, staff, and colleagues. Patient referrals, he says, are critical to success, and physicians should know how to cultivate them.

Medical students, residents, and fellows are clearly interested in this information, which Dr. Harris teaches in a popular, nine-week elective course at Mount Sinai School of Medicine called, "The Business of Medicine." The class, in its third year, includes speakers from within Mount Sinai, and outside business leaders.

"We are all certainly smart enough to understand how our business is run," he says. "We just have to be taught. Unfortunately, only two other medical schools in the country offer similar courses."

## Alpha Omega Alpha Ceremony

On Thursday, February 24, leaders from Mount Sinai School of Medicine held a special ceremony in Hatch Auditorium to induct 21 students into the Alpha Omega Alpha (AOA) Honor Medical Society. AOA honors members for their scholarly achievements, community service, and dedication to advancing the medical profession through leadership, honesty, and ethical ideals.

First Row: David Muller, MD, Marietta and Charles C. Morchand Chair in Medical Education and Dean for Medical Education, was surrounded by new inductees. Second Row, LEFT TO RIGHT: Nora Segar, Andrew Goldstone, Sofia Fayngold; Third Row, LEFT TO RIGHT: Denise Purdie, Aarti Patil, Ari Moskowitz, Jingjing Li Sherman; Fourth Row, LEFT TO RIGHT: Katherine Flachs, Stuart Prenner, Julia Pettersen; Standing, LEFT TO RIGHT: Daniel Miller, Robert Goldstone, Randa Tao, Alexandra Golant, Aaron Weiss, Lisa Ochoa-Frongia, Janelle Laudone, George Alba, Joan Price, Joshua Heller, and Jacqueline Goulart



## Alexis Chiang Colvin, MD, An Emerging Leader (continued from page 1)

Discipline and energy have propelled Dr. Colvin throughout her career as a young surgeon specializing in knee, hip and shoulder disorders, including meniscus, rotator cuff, and labral tears. Orthopaedists use various tools to do their work, Dr. Colvin says, and there is a misconception that “brute strength” is necessary to accomplish this. Rather, she adds, “Technique and finesse are often more important in performing arthroscopic surgeries.”

runner herself, Dr. Colvin stood courtside at the 2009 and 2010 U.S. Open tennis tournaments ready to provide immediate medical attention to the players as a U.S. Tennis Association physician.

One of her most memorable cases at Mount Sinai was a Division 1 collegiate lacrosse player who had been misdiagnosed with a sports hernia. He had undergone surgery, but still was unable to return to lacrosse. He was referred to Dr. Colvin who diagnosed

unique position to watch Dr. Colvin grow and develop as an orthopaedist. They have known each other since Dr. Colvin was an undergraduate at Princeton University, and she helped him conduct research one summer. She received her medical degree from Mount Sinai School of Medicine in 2002.

“Dr. Colvin is exactly the kind of modern physician/scientist that Mount Sinai wants to develop,” says Dr. Flatow. “She has studied with leading experts, and is skilled in the latest surgical techniques, including minimally invasive hip arthroscopy.”

Dr. Flatow recently asked Dr. Colvin to be his liaison to the Mount Sinai School of Medicine for medical student education, and found that she “had totally reorganized this into a highly functional educationally progressive system where we keep track of our medical students, and not only help educate them in orthopaedics, but advise them on career choices and residency applications.”

As one of the few female physicians practicing sports medicine, Dr. Colvin says she learned early in her career that “you have to work harder to prove yourself, and that can only benefit patients.”

*“Dr. Colvin is a skilled surgeon, an accomplished educator, and possesses tremendous intellect and indefatigable energy.”*

—EVAN L. FLATOW, MD

During her sports medicine fellowship at the University of Pittsburgh Medical Center, Dr. Colvin’s patients included members of the Pittsburgh Steelers and Pittsburgh Penguins, and athletes from the University of Pittsburgh. An avid tennis player and

him with a hip labral tear, and performed minimally invasive arthroscopic surgery. He not only returned to lacrosse the following season, but helped his team win its division championship.

Over the years, Dr. Flatow has been in a

## Discoveries in the Formation of Memory (continued from page 1)



Cristina Alberini, PhD

more persistent. IGF-II is present in the hippocampus and cortex, areas of the adult brain that are important for memory formation.

Researchers injected the protein into the hippocampus of rats after they had a learning experience. Compared to control groups, those that received the IGF-II had much stronger retention of what they learned, and maintained an elevated memory for several weeks. The control groups showed diminished memory. Significantly, the researchers found that IGF-II levels in the brain

actually increased after a learning experience—and that when the increase was blocked, long-lasting memories could not form.

“This is a very exciting study in that it identifies a fundamentally novel means of enhancing cognitive function in animal models,” says Eric J. Nestler, MD, PhD, Nash Family Professor, and Director of The Friedman Brain Institute.

In the second study, published in the March 4, 2011, issue of the journal *Cell*, researchers investigated brain cells called astrocytes. “We found that astrocytes are much more actively involved in memory formation than previously believed,” says Dr. Alberini. The findings could have significant implications in the understanding and treatment of dementia.

Astrocytes release lactate, which is produced from glycogen, an energy source. “Long-term memory formation requires a great deal of energy,” says Dr. Alberini. “We found that learning produces an increase in lactate release, which occurs from the breakdown of

*“This is a very exciting study in that it identifies a fundamentally novel means of enhancing cognitive function in animal models.”*

—ERIC J. NESTLER, MD, PHD

glycogen. This has a critical function in the formation of long-term memory, and may help new areas of investigation in disorders of memory formation.”

Also, when researchers tested whether the transport of lactate from astrocytes into neurons affects memory formation, their findings were significant. “We found that the concerted action and communication between astrocytes and neurons are essential during long-term memory formation,” says Dr. Alberini.

## Events

### Weight Management Resource Fair

Stop by the Department of Clinical Nutrition and Human Resources annual Weight Management Resource Fair, and join the Healthy Weight Challenge. A special feature: Valentin Fuster, MD, PhD, Director, the Zena and Michael A. Wiener Cardiovascular Institute, will autograph copies of his book, *The Heart Manual*.

Thursday, March 24  
10:30 am – 2:30 pm  
Guggenheim Pavilion, East Atrium

#### Seminar Series Friedman Brain Institute Translational Neuroscience

Barry Horwitz, PhD, Chief, Brain Imaging and Modeling Section, National Institutes of Health, Bethesda, MD, presents “Using Brain Connectivity Analysis to Investigate Brain Disorders.”

Thursday, March 31  
1 pm  
Icahn Medical Institute  
First Floor Seminar Room

#### Grand Rounds Endocrinology

Wendy Y. Chen, MD, MPH, Channing Laboratory, Brigham and Women’s Hospital, Harvard Medical School, presents “Menopausal Hormone Therapy and Breast Cancer Risk.”

Thursday, March 31  
4:30 pm  
Atran Building  
Fourth Floor, Room AB4-11

#### Grand Rounds Health Evidence and Policy

John Wallis Rowe, MD, Professor, Health Policy and Management, Mailman School of Public Health, Columbia University, presents “Payment Reform: The Next Phase of Health Care Reform.”

Tuesday, March 22  
1 pm  
Icahn Medical Institute  
Second Floor, Classroom L2-82

#### Grand Rounds Geriatrics & Palliative Medicine

Melissa Garrido, PhD, Assistant Professor, Research Health Science Specialty, James J. Peters VAMC, presents “Mental Health Issues in Geriatrics and Palliative Care.”

Thursday, March 31  
5 – 6 pm  
Annenberg 10-30

## Education

#### The Page and William Black Post Graduate School for Continuing Education

The Office of Continuing Medical Education offers seminars, conferences, grand rounds, and live web casts for physicians and other health professionals to extend their knowledge and remain current in their specific fields. For more information on courses, visit <http://www.mssm.edu/education/continuing-medical-education/courses> or call the Office of CME at 212-731-7950.

#### Employee Health Service Offers Annual TB Screening

Employee Health Service is offering an initial TB test on day one, with the results read two-to-three days later. Bring your Mount Sinai ID. For more information, call 212-824-7690.

Monday, March 28  
9 am – 5 pm  
Outside the Plaza Café  
(Employee must return to have test read on Thursday, March 31, 7 am – 5 pm)

Tuesday, March 29  
7 am – 3 pm  
Outside the Plaza Café  
(Employee must return to have test read on Thursday, March 31, 7 am – 5 pm)

#### The Seaver Autism Center

“The Advances in Autism” conference, chaired by Joseph Buxbaum, MSc, PhD, BSc, Director of the Seaver Autism Center, is designed for health care professionals, educators, social workers, and family members. For more information, contact Jessica Brownfeld at [jessica.brownfeld@mssm.edu](mailto:jessica.brownfeld@mssm.edu). To register go to [www.mssm.edu/cme/courses/autism](http://www.mssm.edu/cme/courses/autism) or contact Jeanette Cotto at [jeanette.cotto@mssm.edu](mailto:jeanette.cotto@mssm.edu).

Sunday, April 3  
8 am  
Stern Auditorium

## Japan Relief Resources

The Japanese Medical Society of America (JMSA) and the American Red Cross are accepting donations from people interested in supporting victims of the devastating earthquake and tsunami in Japan that occurred on March 11.

JMSA is helping the hardest hit communities rebuild their hospitals and medical infrastructure. **To donate, visit <http://jmsa.org/>.**

The American Red Cross is collecting donations and sending them to the Japanese Red Cross Society. **To donate, visit <http://redcross.org/>.**

## Employee Art Show

Find your inner Picasso and participate in the Third Annual Mount Sinai Employee Art Exhibit, May 26 – June 13. Co-sponsored by the National Arts Program Foundation® and The Mount Sinai Medical Center’s Employee Recognition Program, the event encourages artists of all levels to compete for prizes and awards in painting, for works on paper, photography, sculpture, craft, and mixed

media. Works will be judged by professional artists and visual art professionals in Amateur, Intermediate, Professional, and Youth classifications. Participants must be employees, volunteers, or immediate family members of an employee or volunteer of Mount Sinai. The registration deadline is Friday, April 15. There is no fee. To learn more, call 212-241-1944, or e-mail [artshow@mountsinai.org](mailto:artshow@mountsinai.org).



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2011 Marketing & Communications

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#### Submissions

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[inside@mssm.edu](mailto:inside@mssm.edu)