Innovative Program to Give Students Debt Relief

Medical students with financial need will receive substantial debt relief from a new program at the Icahn School of Medicine at Mount Sinai—the Enhanced Scholarship Initiative. The program, which will launch in the academic year 2019-2020, will enable qualifying students who are in the program for four years to graduate with a maximum total debt of $75,000, compared with the national median of $200,000.

The program is an integral part of the Mount Sinai Health System’s effort to promote equity and diversity in medical education, and well-being among its students, 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. “This is a world-class institution that attracts highly qualified students with a wide range of backgrounds and experiences,” he says. “We want our students to follow their passions in medicine, regardless of their financial circumstances.”

The Icahn School of Medicine is one of a small number of medical schools nationwide that have established campaigns to offer debt relief for students. An estimated 40 percent of students attending the School of Medicine—those with “demonstrated need”—will benefit from the program, with aid covering tuition, housing, meals, and other expenses, such as travel and books. Demonstrated need is the difference between the cost of attending the school and the resources that each student and their family have available to pay.

A Novel Approach to Making Organ Transplants Successful

The nearly 35,000 individuals who receive organ transplants each year in the United States face a harsh reality: the immunosuppressive drugs they must take to maintain organ survival also weaken the immune system, breaking down the body’s critical defenses against cancer, infection, and more. Researchers at the Icahn School of Medicine at Mount Sinai recently developed an innovative type of immunotherapy based on nanotechnology that they hope will address this conundrum. Their findings, published in the November 6, 2018, issue of Immunity, have demonstrated the technology’s feasibility of long-term organ acceptance in mice.

“This is a whole new approach to programming the immune system, not just another small molecule drug that’s going to help with organ transplantation,” says Zahi Fayad,
In 2009, when a prenatal ultrasound showed an abnormal kidney, Luther and Ashley Isler knew that their daughter, Lexi, would be born with a urinary problem. What they did not expect, however, was that Lexi would also be born without a bladder, a condition known as bladder agenesis that has only 20 known survivors worldwide. Today, 8-year-old Lexi is among those remarkable survivors as she continues an extraordinary medical journey supported by her loving family and an interdisciplinary team of Mount Sinai physicians that has included pediatric urologists and nephrologists, and transplant surgeons, along with nurses and countless other caring staff over the years.

When Lexi was 2 years old, doctors at Mount Sinai Kravis Children's Hospital confirmed by magnetic resonance imaging that urine had been backing up into her kidney—because she did not have a bladder. While she was in diapers, not having a bladder was not immediately obvious, but as she grew older, Lexi would need a way to both hold and pass urine. Meanwhile, her kidneys—damaged by her urinary outflow anatomy—had been steadily deteriorating and doctors realized that she would eventually need a kidney transplant.

Lexi’s urology and pediatric doctors formed a close team to strategize about her case from the earliest stages. “Long before a transplant, our team first had to think about how to make a bladder and how to get it to work,” says Jeffrey M. Saland, MD, Chief of Pediatric Nephrology and Hypertension at Mount Sinai Kravis Children’s Hospital and Medical Director of the Pediatric Kidney Transplant Service. When Lexi was 5 years old, Jeffrey A. Stock, MD, Associate Professor of Urology, and Pediatrics, Icahn School of Medicine at Mount Sinai, and Chief of the Division of Pediatric Urology at Mount Sinai Kravis Children’s Hospital, performed the complex, six-hour surgery to create an artificial bladder.

“We removed part of her colon and connected the ends to create a bowel pouch that functioned as a bladder,” says Dr. Stock. “Then, we used her appendix to create a urethra to drain urine from the neobladder.” The neobladder can store, but not empty, urine so Lexi has learned to use a catheter in the bathroom to empty her new bladder. The neobladder procedure is rare. Dr. Stock, who specializes in the surgical reconstruction of genitourinary birth defects, has done only four such procedures in his 25 years of practice.

By January 2018, Lexi’s kidney function was so compromised that at one point, she was unresponsive for days. The situation remained critical all year with very little improvement, and in December 2018, the need for a kidney transplant could not be deferred. Fortunately for Lexi, when she was 3, her father had been identified as a match for her. “It was an easy decision,” says Mr. Isler. “I felt blessed that I was a match.”

In January 2019, as Lexi was about to go...
Identifying trained immunity as a target enabled the Mount Sinai scientists to focus on a signaling pathway known as mammalian target of rapamycin (mTOR), which regulates immune cell metabolism. The team developed an injectable nano-immunotherapy based on high-density lipoprotein (HDL) nanomaterials and the existing mTOR inhibitor rapamycin. “These nanomaterials essentially deliver the rapamycin to the myeloid cells, and that changes the metabolic state of the cells and prevents their activation,” says co-senior author Willem J.M. Mulder, PhD, Professor of Radiology, and Oncological Sciences at Icahn School of Medicine, and Director of the Nanomedicine Program. The absence of myeloid cell and T cell activation, Dr. Mulder points out, could drastically reduce the need for transplant patients to take lifelong immunosuppressive medicines to prevent graft rejection.

“I have the utmost respect for the doctors and nurses at Mount Sinai,” says Ms. Isler. “They all treated Lexi with so much respect and love. The nurses even came to her bedside when their shifts were over to paint with her.” Despite periodic hospital stays, Lexi is happy and back at school, facing her health challenges with grace and an amazingly positive attitude for a girl her age, says Ms. Isler. Lexi recently found the courage to stand before her classmates and tell them about the condition she was born with and how it was treated. “Her classmates have been very supportive, and they don’t treat her like she’s different,” says Ms. Isler. At home, the child who had been taking dance classes since the age of 2 has newfound energy and dances around the house with a lack of inhibition, Mr. Isler says. “With a lot of support, our goal is to enable Lexi to live a long, happy, and healthy life,” says Dr. Stock.

To learn more about organ donation, visit www.LiveOnNY.org.

Innovative Program to Give Students Debt Relief (continued from page 1)

that cost. Students who qualify will take out a loan of no more than $18,750 per year, funded by a combination of institutional and federal loans. The rest of these students’ unmet need will be covered by the new scholarship.

“We have taken an approach that is both practical and principled,” says David Muller, MD, Dean for Medical Education and the Marietta and Charles C. Morchand Chair in Medical Education at the Icahn School of Medicine at Mount Sinai. “From a practical perspective, we want to cover not just tuition, but all the other costs of education, which can add up to $25,000 - $50,000 a year to a student’s debt over and above tuition. From a principled perspective, we want to channel our resources to students with the greatest need so they can move on to healthy, productive careers.”

It is well established that even the prospect of debt serves as a deterrent to students who are underrepresented in medicine or come from lower-income families, Dr. Muller says. “There are unacceptable disparities among many African American and Latino students whose desire to seek a career in medicine far outstrips their financial wherewithal to do so. This is the kind of statistic we want to change,” says Dr. Muller. He also points out that overwhelming debt has been correlated with an increase in stress, burnout, and depression.

The initiative was made possible by members of the Mount Sinai Boards of Trustees, led by Donald J. Gogel, Chair of the Boards’ Education Committee. “This is a tremendously important moment for our students with financial need and their ability to reduce the debt incurred from attending medical school. For the Mount Sinai Boards of Trustees, this issue is a very important area of focus, almost a moral imperative,” says Mr. Gogel. “We believe that the new scholarships will increase our students’ freedom and flexibility in the choice of where and how they will practice medicine, conduct research, or teach once they graduate.”

Valerie Parkas, MD, Senior Associate Dean of Admissions and Recruitment, Icahn School of Medicine at Mount Sinai, says the Enhanced Scholarship Initiative will help level the playing field for promising students from a variety of backgrounds: “This a bold move that is grounded in our vision, grounded in our mission, and grounded in our commitment to equity.”
Inaugural Symposium Explores Women’s Health

Why are more women than men hospitalized for schizophrenia after age 50? How should a bipolar pregnant woman be medicated? What should the study of women’s health encompass? These were some of the questions posed recently by leading physician-scientists at the inaugural symposium of The Blavatnik Family Women’s Health Research Institute at the Icahn School of Medicine at Mount Sinai—“Cutting-Edge Topics in Women’s Health.”

The keynote speaker of the symposium, held in Davis Auditorium, was Vivian Pinn, MD, the first Director of the Office of Research on Women’s Health at the National Institutes of Health (NIH). She delivered a lesson on the not-so-distant past, saying, “Until the 1990s, most women’s health research was related to the reproductive system or the breasts—what is known as ‘bikini medicine’—and most studies of conditions that affect both men and women were conducted only in men.”

The symposium focused on issues such as equity in research, and health conditions that end women’s lives prematurely or significantly reduce their quality of life. “These topics are a reflection of the broad research portfolio of The Blavatnik Family Women’s Health Research Institute and our strong commitment to health equity,” said its founding Director, Elizabeth A. Howell, MD, MPP, Vice Chair for Academic, Research, and Community Programs, Icahn School of Medicine at Mount Sinai; Susan Domchek, MD, Executive Director, Basser Center for BRCA, Penn Medicine; and Stephanie V. Blank, MD, Director of Gynecologic Oncology, Mount Sinai Health System.

Mental health is one area in which sex differences are clear, said Veerle Bergink, MD, PhD, Professor of Psychiatry, and Obstetrics, Gynecology and Reproductive Science, Icahn School of Medicine. Dr. Bergink said women are particularly vulnerable during pregnancy, which she and other panelists called a “stress test” that can trigger underlying autoimmune or mental health disorders. Her evidence-based treatment strategy, published in the December 2016 American Journal of Psychiatry, concluded that women who have bipolar disease or previous postpartum psychosis could avoid a relapse if they are treated with lithium soon after delivery. An important area for further study is schizophrenia in post-menopausal women, Dr. Bergink said. Until age 50, the disorder is more prevalent in men, but there is a sudden turning point after 50 when more women are hospitalized for schizophrenia than men. An “estrogen hypothesis” proposes that the hormone has a protective effect that declines after menopause. “But we know very little about this,” Dr. Bergink said. “Most of the schizophrenia research over the last 50 years has investigated men, and very little has focused on women.”

Another area for further study is the influence of pregnancy complications on women’s health in later life, said Laura E. Riley, MD, Professor and Chair of Obstetrics and Gynecology, Weill Cornell Medicine. Dr. Riley said that 7 to 10 percent of pregnant women in the United States are diagnosed with gestational diabetes and up to 9 percent contract preeclampsia, characterized by dangerously high blood pressure. Studies have shown that such complications are associated with cardiovascular disease and type 2 diabetes later in the lives of these women, Dr. Riley said, and there are many medical and behavioral interventions to be explored. “For those of you looking for research projects, these might be good ones,” she said, “because I don’t think this story is over.”

Attendees received expert grant-writing advice from Andrea Dunai, MD, Chief of the Hilda and J. Lester Gabrilove Division of Endocrinology, Diabetes and Bone Disease, Icahn School of Medicine, whose groundbreaking research into diabetes and polycystic ovary syndrome has been continuously funded by the NIH since 1985. She also addressed more complex challenges, such as adhering to the “sex as a biological variable” policy, which since 2016 has required researchers to factor sex into the design, analysis, and reporting of any study that involves humans or vertebrate animals.

Inclusive research is a key legacy of Dr. Pinn, who retired in 2011. The office she led was established in 1990, after four congresswomen called for action on women’s health research. Since then, studies have documented sex differences in the prevalence, age of onset, and severity of autoimmune diseases, depressive disorders, diabetes, and cardiovascular disease. “And there is still much to learn,” she said, “about the process of moving from discovery to treatment.”
Patient Safety Highlighted at Events

The Mount Sinai Hospital and Mount Sinai Queens kicked off Patient Safety Week on their campuses in mid-March with the screening of a documentary film, followed by two-day patient safety fairs. Organized by the Department of Risk Management and Patient Safety, the week’s events began in Hatch Auditorium with a screening of To Err Is Human, an in-depth film on patient safety, followed by a panel discussion. Later in the week, employees at The Mount Sinai Hospital and Mount Sinai Queens attended informative and fun-filled Patient Safety Fairs. They participated in raffle drawings and trivia games related to best practices in patient safety. Stations highlighting pharmacy procedures, infection prevention, and quality assurance were set up for employees to receive information and ask questions.

Additionally, patient safety experts Robert Freeman, MSN, RN, Senior Director of Clinical Operations, The Mount Sinai Hospital; and Patty Skolnik, Founder, President, and Chief Executive Officer, Citizens for Patient Safety, presented lectures on leveraging artificial intelligence to improve the quality and safety of care and how empathy and understanding positively impact the quality of care, respectively.

New Outpatient Practice Opens At Mount Sinai West

Faculty and staff gathered for a recent ribbon-cutting event at Mount Sinai West to celebrate the opening of a new outpatient practice located on the second floor of the historic Ansonia Building on the Upper West Side of Manhattan. The 11,000-square-foot practice, Mount Sinai Doctors Ansonia, will offer comprehensive services in primary care, endocrinology, and medical and cosmetic dermatology.

The Icahn School of Medicine at Mount Sinai recently agreed to collaborate on food allergy research with the Siriraj Hospital, Mahidol University, and the Samitivej Allergy Institute, prominent medical institutions in Bangkok, Thailand. Initial studies will center on wheat allergies—one of the most common—that appear to be increasing in Thailand. In 2018, researchers from the Elliot and Roslyn Jaffe Food Allergy Institute at the Icahn School of Medicine published the results of a rigorous clinical trial showing that more than half of children in the study were successfully desensitized to wheat after a year of oral immunotherapy.
### Mount Sinai Celebrates Patient Experience Week

From Monday, April 22, through Friday, April 26, faculty and staff are welcome to attend special events throughout the Mount Sinai Health System. For a full list of activities at your location, please go to inside.mountsinai.org/blog/pxweek19/.

<table>
<thead>
<tr>
<th>Mount Sinai Hospital</th>
<th>Mount Sinai Downtown</th>
<th>Mount Sinai Queens</th>
<th>New York Eye and Ear Infirmary of Mount Sinai</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Experience Fair</strong></td>
<td><strong>Wow Moment Wednesday</strong></td>
<td><strong>Fun and Information</strong></td>
<td><strong>Honoring NYEE Teams</strong></td>
</tr>
<tr>
<td>Visit tables for information, tips on compassionate care, treats from MSH leadership, a photo booth, and giveaways.</td>
<td>Tell us your patient experience “hero” stories. Wednesday, April 24 10 am - Noon Mount Sinai-Union Square Atrium</td>
<td>Tell your stories about patient care and learn about programs including STAR, Weekend Update Trivia, and Heads Up. Tuesday, April 23 11:30 am - 1:30 pm Pavilion Lobby</td>
<td>Winner of Patient Experience Improvement Award to be announced.</td>
</tr>
</tbody>
</table>
| Monday, April 22 11 am - 2 pm Guggenheim Pavilion | Thursday, April 25 11:30 am - 1:30 pm Pavilion Lobby | Wednesday, April 24 11:30 am - 1:30 pm Pavilion Lobby | Wednesday, April 24
| **MSH Updates and STAR Award Ceremony** | **Wednesday, April 24** | **Wednesday, April 24** | **Wednesday, April 24** |
| Tuesday, April 23 8:30 - 9:30 pm Hatch Auditorium | The Blavatnik Family – Chelsea Medical Center | The Blavatnik Family – Chelsea Medical Center | 
| Thursday, April 25 9 - 10 am Goldwurm Auditorium | Wednesday, April 24 10 am - Noon Mount Sinai Beth Israel Petrie Linsky Lobby | Wednesday, April 24 11:30 am - 1:30 pm Pavilion Lobby | **Caring for Caregivers** |
| **Mount Sinai St. Luke’s** | **Fantastic Friday** | **Empathy Olympics and Transport Experience** | **Experience the Chi Cart in your work area or at a Pop-Up Cart.** |
| **I Am the Patient Experience** | Share your story about a great patient experience. Friday, April 26 9:30 - 11:30 am Mount Sinai-Union Square Atrium | Staff can learn the perspective of patients with impaired vision, hearing, and mobility, and experience travel via stretcher and wheelchair. Thursday, April 25 10:30 am - 12:30 pm Conference Room 2B | Thursday, April 25 Noon - 1:30 pm Third Floor Conference Room |
| Stop by informational tables. | Friday, April 26 3 - 5 pm The Blavatnik Family – Chelsea Medical Center | | **Open Forum** |
| Monday, April 22 11:30 am - 3 pm Babcock Lobby | Friday, April 26 10:30 am - 1 pm Mount Sinai Beth Israel Petrie Linsky Lobby | Share stories with the Patient Experience of Care Department Council. Thursday, April 25 4 - 5 pm Conference Room A | **Monday, April 22** 3:30 - 10 pm Inpatient Units |
| **Maintaining Resilience** | | | **Epic Roll Out** |
| Take part in a discussion of self care. | | | Get giveaways and information. Monday, April 22 11:30 am - 2 pm Main Lobby |
| Wednesday, April 24 3 - 4 pm Executive Conference Room Chapel Lobby | | | **Ice Cream Rounds** |
| **Patient Experience 101** | | | Monday, April 22 3:30 - 10 pm Inpatient Units |
| Attend a lunch and learn about using data to support patient care. | | | **Open Forum** |
| Thursday, April 25 Noon - 1:30 pm Muhlenberg Room 410 | | | Share stories with the Patient Experience of Care Department Council. Thursday, April 25 4 - 5 pm Conference Room A |

### Epic Electronic Health Record Is Coming to Mount Sinai Brooklyn

Mount Sinai Brooklyn is implementing Epic, the electronic health record currently in use at The Mount Sinai Hospital, Mount Sinai Queens, Mount Sinai St. Luke’s, and Mount Sinai West. The effort aligns the hospital with the strategic goal of providing integrated and coordinated care for patients across the Mount Sinai Health System. It is being led by Mount Sinai Brooklyn operational and clinical leadership, the Mount Sinai Epic Clinical Transformation Group, and the Program Management Office within the Information Technology Department. The program is scheduled to “go live” Sunday, September 8.

For more information, email the program team at EpicInPatientMSB@mountsinai.org.