Icahn Mount Sinai: Emerging Resilient
Taking pride in Mount Sinai’s pandemic response

Faculty, students, and trainees are battle-tested
We emerged stronger than ever
Our sense of mission is reinforced
Research and clinical faculty and staff collaborated to achieve scientific and medical breakthroughs to benefit patients and society
Recognized for Research Excellence

14th
In Total NIH Funding
Ranked 14th in total NIH funding among all U.S. medical schools

13
Top Research Departments
13 basic and clinical science departments in top 20 NIH funding

99th
Percentile
99th percentile among U.S. private medical schools in research dollars per investigator

No. 17
Among top research-oriented medical schools
As reported by U.S. News & World Report

Selected to Serve as Capacity-Building Center and Center of Excellence as part of the National Cancer Institute’s New Serological Sciences Network
Our NIH Funding is Growing: 2011–2021 (in $M)

Funding Trend

- Grants
- Contracts
# Department Rankings for NIH Funding: Top 20

## Basic Sciences

<table>
<thead>
<tr>
<th>No. 2</th>
<th>Microbiology</th>
<th>No. 2</th>
<th>Neurosciences</th>
<th>No. 5</th>
<th>Genetics</th>
<th>No. 12</th>
<th>Cell Biology</th>
<th>No. 16</th>
<th>Pharmacology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$26.86M</td>
<td></td>
<td>$37.18M</td>
<td></td>
<td>$36.11M</td>
<td></td>
<td>$12.60M</td>
<td></td>
<td>$12.4M</td>
</tr>
</tbody>
</table>

## Clinical Sciences

<table>
<thead>
<tr>
<th>No. 5</th>
<th>Emergency Medicine</th>
<th>No. 5</th>
<th>Psychiatry</th>
<th>No. 5</th>
<th>Public Health</th>
<th>No. 11</th>
<th>Physical Medicine</th>
<th>No. 12</th>
<th>Internal Medicine</th>
<th>No. 14</th>
<th>Neurology</th>
<th>No. 17</th>
<th>Orthopedics</th>
<th>No. 18</th>
<th>Radiology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$5.49M</td>
<td></td>
<td>$43.54M</td>
<td></td>
<td>$21.8M</td>
<td>$1.1M</td>
<td>$121.35M</td>
<td>$18.86M</td>
<td>$2.4M</td>
<td>$9.0M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Blue Ridge 2020 Data)
Recognition for Our Faculty and Students

Eric Nestler
MD, PhD, ACNP

Received recognition for lifetime achievement by the American College of Neuropsychopharmacology.

Judy Cho
MD

Honored with the Lori Sherman Prize for her trailblazing genetics research into inflammatory bowel disease.

Ian Maze
PhD

Selected as Howard Hughes Medical Institute Investigator.

Michael B. Fernando
PhD

Received the prestigious Gilliam Fellowship to support diversity and inclusion in science from the Howard Hughes Medical Institute.

Miriam Saffern

Graduate student, one of the five 2021 winners of the Lasker Foundation Essay Contest.

Icahn School of Medicine at Mount Sinai | State of the School | January 2022
Accelerating Translational Research Through New Research and Educational Initiatives

Centers (newly established or re-organized)

- Brain Body Research Center (Scott Russo, PhD)
- Center for Advanced Genomic Technology (Robert Sebra, PhD)
- Center for Computational Psychiatry (Xiaosi Gu, PhD)
- Center for Light and Health Research (Mariana Figueiro, PhD)
- Center for Neural Epigenome Engineering (Ian Maze, PhD)
- Center for Psychedelic Research (Rachel Yehuda, PhD)
- Center for Research on Influenza Pathogenesis and Transmission (Adolfo Garcia-Sastre, PhD)
- Center for Scientific Diversity (Emma Benn, DrPh)
- Mark Lebwohl Center for Neuroinflammation and Sensation (Brian S. Kim, MD)
- Skin Biology and Diseases Resource-based Center (Elena Ezhkova, PhD)

Institutes

- Cardiovascular Research Institute (Filip Swirski, PhD)
- Institute for Transformative Clinical Trials (Annetine Gelijns, PhD, JD; Emilia Bagiella, PhD, Alan J. Moskowitz, MD)

Division of Data Driven and Digital Medicine within the Department of Medicine (Girish Nadkarni, PhD)

Department of Artificial Intelligence and Human Health (Thomas Fuchs, Dr. Sc.)

PhD Concentration in Artificial Intelligence and Emerging Technologies (AIETM)
# New Appointments and Promotions

## Deans

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Judith A. Aberg, MD</strong></td>
<td>System Operations for Clinical Sciences</td>
</tr>
<tr>
<td><strong>Angela Diaz, MD, PhD, MPH</strong></td>
<td>Global Health, Social Justice, and Human Rights</td>
</tr>
<tr>
<td><strong>David Feinberg</strong></td>
<td>Marketing and Communications</td>
</tr>
<tr>
<td><strong>Thomas Fuchs, Dr. SC.</strong></td>
<td>Artificial Intelligence and Human Health</td>
</tr>
<tr>
<td><strong>Patricia Kovatch</strong></td>
<td>Scientific Computing and Data</td>
</tr>
<tr>
<td><strong>Shema B. Patel</strong></td>
<td>Faculty Affairs and Administration</td>
</tr>
<tr>
<td><strong>Caryn Tiger-Paillex, MSILR</strong></td>
<td>Faculty, Staff, and Trainee Relations</td>
</tr>
</tbody>
</table>

## Senior Associate Deans

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bradley Gano, MPS</strong></td>
<td>Graduate School of Biomedical Sciences</td>
</tr>
<tr>
<td><strong>Luis Isola, MD</strong></td>
<td>Clinical Affairs</td>
</tr>
<tr>
<td><strong>Marc Kaplan</strong></td>
<td>Marketing and Communications</td>
</tr>
<tr>
<td><strong>Amy S. Kelley, MD, MSHS</strong></td>
<td>Gender Equity in Science and Medicine</td>
</tr>
<tr>
<td><strong>Ann-Gel Palermo, DrPH</strong></td>
<td>Diversity, Equity, and Inclusion</td>
</tr>
<tr>
<td><strong>Rainier P. Soriano, MD</strong></td>
<td>Curricular Affairs in Medical Education</td>
</tr>
<tr>
<td><strong>Toni A. Stern, MD, MBA</strong></td>
<td>Gender Equity in Science and Medicine</td>
</tr>
</tbody>
</table>

## Associate Deans

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarissa Jones-Winter, MPP, JD</strong></td>
<td>Faculty, Staff &amp; Trainee Relations</td>
</tr>
<tr>
<td><strong>Danielle Tyson</strong></td>
<td>Human Resource Operations</td>
</tr>
</tbody>
</table>
### New Appointments and Promotions

<table>
<thead>
<tr>
<th>Chair/Division Chief</th>
<th>Institute Director</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alison M. Goate, Dphil</strong>&lt;br&gt;Chair, Genetics and Genomics Science</td>
<td><strong>Leslee J. Shaw, PhD</strong>&lt;br&gt;The Blavatnik Family Women’s Health Research Institute</td>
<td><strong>Kelly Cassano, DO</strong>&lt;br&gt;Chief Executive Officer of the Mount Sinai Doctors Faculty Practice</td>
</tr>
<tr>
<td><strong>Emma Guttman, MD, PhD</strong>&lt;br&gt;Chair, Dermatology</td>
<td><strong>Filip Swirski, PhD</strong>&lt;br&gt;Cardiovascular Research Institute</td>
<td><strong>Matthew Rosamond, MBA</strong>&lt;br&gt;Chief Finance Officer</td>
</tr>
<tr>
<td><strong>Barbara Sampson, MD, PhD</strong>&lt;br&gt;Vice Chair, Laboratory Strategic Initiatives and Academic Affairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Joseph A. Sparano, MD, FACP</strong>&lt;br&gt;Chief, Hematology and Medical Oncology</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Joanne L. Stone, MD</strong>&lt;br&gt;Chair, Obstetrics, Gynecology, and Reproductive Science</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Preparing Our Faculty for Success: Office of Faculty Development

Career Advancement
• Strategies/Tactics for NIH K/R Awards
• Workshops to prepare for promotion

Leadership Development
• Resources and training for leaders

Mentorship Enrichment
• Membership for Junior Faculty in National Center for Faculty Development and Diversity
• Creating digital platforms for mentorship

Jonathan Ripp
MD, MPH
Dean

Lauren Peccoralo
MD, MPH
Senior Associate Dean

Emma Benn
DrPH
Associate Dean
Opportunities for Career Growth: Investigator Track Faculty

Icahn Mount Sinai’s robust faculty development and mentoring programs make us an attractive institution for early and mid-career stage faculty.

New Investigator Track Faculty in 16 Disciplines

- Population Health Science and Policy
- Pathology, Molecular and Cell-Based Medicine
- Medicine
- Cell, Developmental & Regeneration Biology Medicine
- Dermatology
- Diagnostic, Molecular and Interventional Radiology
- Emergency Medicine
- Environmental Medicine and Public Health
- Genetics and Genomic Sciences
- Microbiology
- Neurology
- Neuroscience
- Oncological Sciences
- Orthopedics
- Psychiatry
- Radiation Oncology
Advancing Women in Leadership Roles at ISMMS

Women at Mount Sinai, 2013–2021

<table>
<thead>
<tr>
<th>Role</th>
<th>2013</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professors</td>
<td>47%</td>
<td>51%</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>35%</td>
<td>38%</td>
</tr>
<tr>
<td>Professors</td>
<td>24%</td>
<td>28%</td>
</tr>
<tr>
<td>Chairs</td>
<td>9%</td>
<td>25%</td>
</tr>
<tr>
<td>Institute Directors</td>
<td>0</td>
<td>36%</td>
</tr>
<tr>
<td>Deans</td>
<td>9%</td>
<td>43%</td>
</tr>
</tbody>
</table>
Advancing Women in Leadership Roles at ISMMS
For the Office of Gender Equity in Science and Medicine

• Doris Duke Charitable Foundation COVID-19 Fund to Retain Clinician Scientists
• Four new Distinguished Scholars Awardees for junior investigators
• New programs to support, sponsor and retain women as they advance their professional careers

Carol R. Horowitz, MD, MPH
Dean

Toni A. Stern, MD, MBA
Senior Associate Dean

Amy S. Kelley, MD, MSHS
Senior Associate Dean

Jenny Lin, MD
Director of Strategic Initiatives
Medical Education: Attracting a Diverse Group of the Best and the Brightest Students

<table>
<thead>
<tr>
<th></th>
<th>MD</th>
<th>FlexMed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matriculate 2021</td>
<td>109</td>
<td>34</td>
</tr>
<tr>
<td>Matriculate 2023</td>
<td>109</td>
<td>34</td>
</tr>
<tr>
<td>Women</td>
<td>50%</td>
<td>59%</td>
</tr>
<tr>
<td>Underrepresented in Medicine/Science</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Number of Undergraduate Schools</td>
<td>47</td>
<td>21</td>
</tr>
<tr>
<td>Median MCAT</td>
<td>517</td>
<td>N/A</td>
</tr>
<tr>
<td>Median GPA</td>
<td>3.86</td>
<td>3.97</td>
</tr>
</tbody>
</table>

Successful Early Exposure to Research

2021 Graduates:

- 80% published while in medical training
- 32% published in 4 or more journals

New MedEd Mission Statement

“Our mission is to nurture a visionary community of students, staff, faculty, and leaders who are committed to advancing exceptional clinical care and science that is free of racism and oppression in all its forms.”
### Supporting Diversity and Growing External Partnerships: Graduate School of Biomedical Sciences

<table>
<thead>
<tr>
<th></th>
<th>PhD</th>
<th>MD-PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matriculate 2021</td>
<td>45</td>
<td>12</td>
</tr>
<tr>
<td>Women</td>
<td>67%</td>
<td>58%</td>
</tr>
<tr>
<td>Underrepresented in Medicine/Science</td>
<td>29%</td>
<td>42%</td>
</tr>
<tr>
<td>Number of Undergraduate Schools</td>
<td>41</td>
<td>9</td>
</tr>
<tr>
<td>Median GPA</td>
<td>3.71</td>
<td>3.81</td>
</tr>
</tbody>
</table>

**Expanded external partnerships for research and course exchanges**
- Cooper Union, Hasso Plattner Institute, and RPI (Life Sciences Entrepreneurship Certificate within RPI’s MBA program)

**Established or expanded anti-racist and diversity initiatives**
- Refocused the Summer Undergraduate Research Program (SURP) on underrepresented students
- Established a Center for Antiracism in Practice, with MedEd
- Launched SINAI4US — Application Assistance and Advisory Program to cultivate diverse and competitive PhD applicant pool

**Established new concentration in the PhD Program**
- Artificial Intelligence in Emerging Technologies in Medicine
A Leader in Graduate Medical Education

Our graduate medical education program remains the largest in the United States

2,649 residents and clinical fellows in 250 GME programs

Eight new ACGME accredited programs in 2021
- Clinical biochemical genetics
- Child neurology
- Neurotology
- Complex family planning
- Pediatric hematology and oncology
- Surgical critical care (Elmhurst)
- Adult congenital heart disease
- Gastroenterology (MSSN)

11 programs ranked in top 20 in the United States by reputation (Doximity)
- Dermatology (MSH)
- Radiology Nuclear Medicine (MSH)
- Phys Med/Rehab (MSH)
- Obstetrics-Gynecology (MSH)
- Radiology Diagnostic (MSH)
- Otolaryngology (MSH)
- Psychiatry (MSH)
- Emergency Medicine (MSH)
- Internal Medicine (MSH)
- Neurology (MSH)
- Radiology Diagnostic (MSMW)

Three new ACGME fellowship programs under development
- Health Care, Administration, Leadership, and Management (HALM)
- Neurocritical Care
- Pediatric Dermatology
Students and Trainees Respond to the Pandemic

**COVID-19 Student Workforce** supported our response:

1. **PPE** – tracking, dissemination, and delivery
2. **Pharmacy** – helping manage medical supplies
3. **Morale** – coordinating meal delivery and other supports to students and staff
4. **Telehealth** – relaying test results and triaging the palliative care hotline
5. **Labs** – Supporting serum antibody testing and other research efforts
6. **Operations** – helping assemble and deliver vital equipment and support clinical trials

**Medical Corps – Established by NYS Executive Order**

- 19 fourth-year Mount Sinai medical students began work at their respective hospitals
- 10 students graduating from other instructions who had matched at Mount Sinai assist our staff

**COVID-19 Biobank** – Helped establish one of the largest and most important resources for current and future research

- Master’s and PhD candidates transitioned to collecting and analyzing samples

**Publications:**

- Our students published a detailed blueprint in *Academic Medicine* for other students and schools facing their own pandemic or any future crisis
Mental Health: “We Take Care of Our Own”—Office of Well-Being and Resilience (OWBR)

ACGME – Physician Well-Being-Tools and Resources in:
- Identifying and Addressing Burnout
- Promoting Well-Being
- Assessing and Addressing Psychological Distress/Distress/Suicide
- Improving the Learning and Working Environment
- Coping with Tragedy

Center for Stress Resilience and Personal Growth
Leverage cutting-edge science and clinical care to enhance the resilience and emotional well-being of all Mount Sinai faculty, staff, and trainees

JAMA CHARM initiative
Provided expertise to develop Charter on Physician Well-Being
- Advancing awareness of individual and system-level interventions designed to mitigate trainee as well as provider burnout and promote well-being

National Academy of Medicine
Participates on Academy’s Action Collaborative on Physician Well Being and Resilience working group
- Raise the visibility of clinician anxiety, burnout, depression, stress, and suicide
- Improve baseline understanding of challenges to clinician well-being
- Advance evidence-based, multidisciplinary solutions to improve patient care by caring for the caregiver

Well Being Toolkit
Created toolkit to share our approach to addressing the basic, psychosocial, and mental health needs of our workforce.
Making Icahn Mount Sinai a More Equitable and Anti-Racist Institution: Road Map for Action

We Stand in Solidarity Against Racism. And We Are Committed to Equity in Health Care.
<table>
<thead>
<tr>
<th>Step</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Develop an equity scorecard</td>
</tr>
<tr>
<td>2.</td>
<td>Unify and integrate clinical practices</td>
</tr>
<tr>
<td>3.</td>
<td>Enhance community partnerships and accountability.</td>
</tr>
<tr>
<td>4.</td>
<td>Build connection and community within the MSHS to adopt a racial equity culture.</td>
</tr>
<tr>
<td>5.</td>
<td>Forge new and leverage existing partnerships and networks within the MSHS to accelerate anti-racism and equity efforts.</td>
</tr>
<tr>
<td>6.</td>
<td>Develop a sustained financial investment in racial equity and anti-racism.</td>
</tr>
<tr>
<td>8.</td>
<td>Increase recruitment, hiring, and retention of Black and other underrepresented minority (URM) staff and faculty at all levels of leadership.</td>
</tr>
<tr>
<td>10.</td>
<td>Enhance leadership learning, capacity, knowledge, engagement, and accountability enabling all leaders to participate in anti-racism efforts.</td>
</tr>
<tr>
<td>11.</td>
<td>Provide anti-racism education and resources throughout the MSHS.</td>
</tr>
</tbody>
</table>

---

> Gary Butts, MD  
> Executive Vice President, Chief Diversity Officer, Dean for Diversity Policy, Programs, and Community Affairs

> Ann-Gel Palermo DrPH, MPH  
> Senior Associate Dean

> Pamela Abner, MPA  
> Vice President and Chief of Diversity, Equity, and Inclusion (MSHS)

> Leona Hess, PhD  
> Senior Director, Strategy and Equity Education Programs
# Making Our School a More Anti-Racist Care and Learning Institution

## Addressing Racism in Medical and Graduate Education
- Center for Anti-Racism in Practice (CAP)
- Anti-Racist Transformation (ART) in Medical Education

## Black Executive Acceleration Program
- One-year program for high potential
- Black-identified leaders aspiring to more senior leadership roles

## Committee to Address Anti-Asian Bias and Racism (CAABR)
- Established to address racism experienced by our Asian and Asian American Colleagues

## Fellowship Program to Address Disparities in LGBTQ Health Care
- AMA Foundation funded

## Chats for Change
- Goes National
- Sessions are becoming available to all medical education communities
## Making Our School a More Anti-Racist Care and Learning Institution

<table>
<thead>
<tr>
<th>Initiative to Decrease Disparities in Cancer Clinical Trials</th>
<th>LINC Mentorship Program</th>
<th>Mount Sinai Biomedical Laureate Program</th>
</tr>
</thead>
</table>
| • Stand Up 2 Cancer                                        | • Learning, Investing, Networking and Connecting through Mentorship | • First cohort recruited  
|                                                             |                         | • Designed to increase diversity among basic and clinical research faculty |

<table>
<thead>
<tr>
<th>NIH FIRST Grant</th>
<th>Partnerships with Historically Black Colleges and Universities</th>
</tr>
</thead>
</table>
| • Hire underrepresented early career faculty  
• Implement a program to mentor career development for research success | • Affiliation agreement signed with Meharry Medical College  
• HCBU/MSI Working Groups |
Making ISMMS a More Equitable and Anti-Racist Institution: Office of Diversity and Inclusion (ODI)

• Co-direct the Center for Antiracism in Practice

• All seven participating Mount Sinai hospitals in the annual national LGBT Health Equality Index have sustained full Leadership Status through 2021

• The Faculty Diversity Council and GME Diversity Council continue to advance efforts on recruitment, retention, and advancement of women and URIM faculty and house-staff

• Summer Programs for Underrepresented in Schools of Medicine and Disadvantaged College Students

• ODI Corporate Health Services Affairs (CHSA) Contributes to the Road Map’s health quality dashboards by developing best practices in data collection methodology on various patient-related sociodemographic variables
Reducing Health Disparities and Supporting Health Equity: Institute for Health Equity Research

COVID-19 community-engaged work
• Community-based survey in 11 languages
• New York city Community Engagement Alliance to End COVID-19 Disparities (NYCEAL)
• Community engagement and research during NYC’s pandemic

Worked across ISMMS departments helping researchers to include equity lens
Developed disparities dashboard to identify and eliminate inequalities in health care quality and access
Trained a diverse, culturally competent research workforce

Center for Scientific Diversity (CSD) Exceptional Scholars Program

Selected Studies
• Interaction of race, ancestry, genomics, and air pollution on chronic kidney disease
• Studying diabetes-related disparities interventions among underserved populations
• Longitudinal cohort study of association between SARS-CoV-2 seropositivity and social determinants

Carol R. Horowitz, MD, MPH
Director

Lynne Richardson, MD
Co-Director
Accelerating Innovation and Entrepreneurship: Mount Sinai Innovation Partners (MSIP)

- **846** Faculty Engagements
- **93** Licenses and Options
- **216** Research Contracts (Providing $15.2M in funding)
- **152** Technology Disclosures
- **378** New Patent Applications (Includes filed provisional, PCT, US, European, and other foreign national phase applications and filings)
- **1,184** Material Transfer Agreements
- **358** Confidentiality Disclosures

1/1/2020 – 12/31/2020
## Visit Impact and Revenue Growth

<table>
<thead>
<tr>
<th>Return to 90%—100% practice levels between in-person and telehealth visits</th>
<th>140% increase in digital bookings through enhanced online scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive to revised budget on all campuses and in almost every clinical department</td>
<td>Revenue—Annualized 2020 at $900 million</td>
</tr>
<tr>
<td>Continued deployment of vaccines to patients and employees in accordance with NYS guidelines</td>
<td>Developed processes for online scheduling for texting patients and employees</td>
</tr>
</tbody>
</table>

## New Practice Locations

- **Mount Sinai Doctors—Delancey**
- **Mount Sinai Doctors at HealthQuarters**
Institutional Advancement: MSHS “Limitless” Capital Campaign Public Phase

Press Release
Mount Sinai Health System Launches Bold $2 Billion Capital Campaign

“Limitless” Campaign has raised $1 billion ahead of schedule for critical clinicals and research institutes in the wake of pandemic

First Comprehensive Capital Campaign for Health System

$2.0B
2017 – 2025

Raised to Date
(as of 1/5/22)

$1.28B
64% Goal Achieved

2021 Raised to Date

$273.6M
Growth Needs New Space

Mount Sinai Discovery and Innovation Center
• West Campus—787 11th Avenue
  - Occupying sixth, seventh, and eighth floors
  - Housing major research programs and MSW clinical programs
  - Occupancy: January 2023

Center for Artificial Intelligence
• Renovation of 3 East 101 Street
• Housing new Department of AI/Human Health and Institute for Genomic Health and Division of Genomic Medicine