

COMMENCEMENT 2018 DENNIS S. CHARNEY, MD

STANDING ON THE SHOULDERS OF GIANTS

Welcome to the 49th Commencement of the Icahn School of Medicine at Mount Sinai.

Family members, Trustees, Faculty, Alumni and Honored Guests, today we celebrate the Class of 2018.

- They are among the most distinguished graduates of any medical or graduate school in the world.
- One of our graduates co-created a national advocacy movement, Protect Our Patients, through which 4,000 medical students nationally, were organized to advocate against repeal of the ACA.
- Another co-authored the Atlas of Palliative Care in Africa, a comprehensive overview of the state of palliative care in Africa.
- Histories, a book that was published by one of our graduates, chronicles what brings people to the medical profession, including their doubts, fears, and hopes.

Many of our graduates made a commitment to human rights and social justice:

- By taking on local and national leadership roles to ameliorate racism and unconscious bias in medicine
- Working diligently to increase diversity in the medical profession and create an environment where diversity and inclusion are valued
- And contributing significantly to advancement of women leaders in medicine and science

Groundbreaking research was conducted by many of our graduates including:

- The development of immunotherapy for cancer and other anti-cancer therapies
- Identification of novel antiviral therapies
- Increasing understanding of the susceptibility to cardiac arrhythmias and coronary artery disease
- And uncovering the genetics of Bipolar Disorder and Schizophrenia and the molecular mechanisms of memory and drug addiction
- And much more. . . .

It is important to point out that our Graduates did not get to this moment of high achievement alone!

Class of 2018, please stand and thank all those friends and family who are here with you today.

As was mentioned, this year is the 50th Anniversary of the founding of our School of Medicine.

Yes, we are one of the outstanding medical schools in the world. We are a top twenty medical school that is seamlessly aligned with an Honor Role Hospital, a designation that ranks us among the top 20 of over 5,000 hospitals nationwide. We are ranked among the Top 15 in NIH funding, and ranked Top 10 in the world by the Nature Innovation Index, reflecting groundbreaking, innovative science. Only three schools in the United States meet these criteria, Icahn School of Medicine at Mount Sinai, UCSF, and Stanford.

This all happened in a mere 50 years – a medical school that grew out of a hospital – not from a university – unique in American medicine.

It could only have happened with the visionary leadership of our founders 50 years ago!

The Founding Dean, Hans Popper, a world renown hepatologist, developed the “Mount Sinai Concept” as the basis to build a great medical school. The Concept had the traditional tripod features of academic medical centers.

PATIENT CARE

The school was immediately attached to a great hospital known for innovation. The Mount Sinai Hospital's contributions to medicine, at the time of the school founding, were great and many. They included such pioneering innovations as: the discovery of local anesthesia by Köller in 1884; the establishment, early in the 20th century, of one of the first chemistry laboratories in an American hospital; the discovery of the method of preserving blood by Lewisohn, which made possible modern blood transfusions and blood banking, which has saved millions of lives; the first description of numerous diseases such as Crohn's disease.

Many physicians on the Mount Sinai Hospital staff, at the school's founding, were recognized as the leaders in their fields. They were authors of standard texts in almost every major field in medicine.

RESEARCH

Initially, the school's research would emphasize quantitative biology, technology development, and translational and clinical research.

MEDICAL EDUCATION

The curriculum would be characterized by early exposure to patients, education in the human sciences, and the formation of a Graduate School of Biological Sciences.

Early on it was decided the Medical School would be an “MIT of medicine” with strong basic science bearing on the practice of medicine. The curriculum focused on the clinical and biological problems confronting the physician, linked with a dedication to the personal problems of the patient and family. It fostered the “healer” mentality as it related to the individual, the family, and the community.

Our founders said “It is in the physician in his attempt to relieve human suffering that the fruits of science and the aspirations of the

humanities are joined. So there is no more fitting person than the Mount Sinai trained physician to initiate this movement and no better time than now”.

So – all the elements of what we now stand for were put in place by our Founders – The Mount Sinai Concept lives on.....

The great Isaac Newton remarked in a letter to his rival Robert Hooke on February 5, 1676 –
“If I have seen farther, it is by standing on the shoulders of giants”.

Mount Sinai is what is today because we have also Stood on the Shoulders of Giants. And some of these Giants are with us today.

As I acknowledge these Giants in chronological order from when they started at Mount Sinai – I ask them to please stand, and remain standing, until all are recognized. Two of our giants could not be here today, Dean Emeritus, **Nate Kase** and former Chair of Surgery, **Arthur Aufses**.

- The development of immunotherapy for cancer and other anti-cancer therapies
- **Kurt Hirschhorn** (recruited 1968) – Established medical genetics program, was long-time chair of Pediatrics, and won every major award in his field.
- **Sandy Masur** (recruited 1968) – Outstanding cell biologist, 35 years of NIH funding, and a national role model for women in science.
- **Terry Krulwich** (recruited 1970) – Dean of our Graduate School from 1981-2002. Revolutionized the training of underrepresented students in Science and Medicine at Mount Sinai.
- **Peter Palese** (recruited 1971) – Acknowledged as one of the leading virologists in the world. Chair of Microbiology from 1987 to present.
- **Robert Desnick** (recruited 1972) – Founding chair of Genetics. Discovered disease carrying gene and treatment for Fabry's Disease.
- **Janice Gabrilove** (Class of 1977) – Pioneer in understanding the biology of hematopoietic growth factors, which has revolutionized how we perform bone marrow transplantation today. Outstanding mentor and teacher.
- **Jeff Laitman** (recruited 1977) – A legendary teacher of anatomy and consummate citizen of Mount Sinai.
- **Gary Butts** (recruited 1980) – Has established one of the nation's leading centers focusing on diversity, equality in care delivery, and racism and unconscious bias in medicine. Largely due to his efforts, this year Mount Sinai Health System has again been ranked No. 1 on DiversityInc's "Top Hospitals and Health Systems" list.
- **Angela Diaz** (1981 Pediatrics training) – Director of the Adolescent Health Center, and legendary figure in providing care to underserved adolescents.
- **Phil Landrigan** (recruited 1985) – One of the world's leading scientists on the effect of the environment in human health. Chair of the Department of Environmental Medicine and Public Health from 1990-2015.
- Graduates of the School who have current positions as Deans and Department Chairs include –
 - o **Scott Friedman** (Class of 1979), Dean for Therapeutic Discovery

- o **Michael Brodman** (Class of 1982), Chair of Obstetrics, Gynecology, and Reproductive Science

- o **Michael Marin** (Class of 1984), Chair of Surgery

- **Bonnie Davis** (Class of 1973) – Discovered one of the most important drug therapy for Alzheimer's Disease. First school graduate to serve on the Board of Trustees.
- **AND, the Conductor of our Band of Giants! Last but not Least! Last but not Least!** – Had surgery at Mount Sinai at age 7. Graduated from the second class in 1973 with the highest grades in his class. One of world's leading neuroscientists. Former Chair of Psychiatry. Now a transformative CEO of Mount Sinai. He bleeds Mount Sinai Blue! You want to be like him but can't!

Do I have to say his name?

Do I have to say his name?

KEN DAVIS.

Let us applaud our Giants of Mount Sinai!

Class of 2018, with these my parting words for you, I wish to speak of the work that needs to be done as your medical school embarks on the next 50 years.

Despite much accomplishment, my generation of physicians and scientists have not fully met our responsibilities or fulfilled our dreams.

- We dreamt of a world where everyone had an equal chance at access to outstanding care from infancy to old age. Yet, inequality of medical care continues to exist.
- **You have the hearts, minds, and the passion to turn this dream to reality.**
- We dreamt of a world free of the devastating consequences of cancer, heart disease, and mental illness. Yet too many patients still suffer. Two people very close to me suffer from metastatic lung cancer and metastatic prostate cancer.
- **You must lead the revolution in precision medicine utilizing advances in genomics, genetic engineering, regenerative biology, and immunology to discover specific and novel treatments for patients with serious disease.**

It is not easy to be a physician and scientist.

It is stressful.

As a physician, there will be times, for patients and families that you have become close to, or even love, when all treatments will have failed and the disease cannot be conquered. They will look to you for answers in the waning hours of life when no answers exist.

As a scientist, there will be doubt, whether you have the creativity to come up with ideas that no one else has thought of.

And, there will even be times when your greatest ideas will be ridiculed and opposed. You will need to have the will and confidence to stay the course – the way some of the greatest scientists in history have.

To be successful you will need to be resilient and invest in your own well-being.

But that is not enough.

Peabody wrote many years ago in 1927, that the secret of physician wellbeing is in caring for the patient. Together, we need to make sure that the culture of America's health systems retains the ability for the physician and the patient to engage in a reciprocal relationship, in which the fundamental act of caring is regenerative, affirming and deeply soul satisfying. (Thomas L. Schwenk, 2018)

Similarly, the culture in our scientific laboratories needs to emphasize mentorship, team work, and the importance of work-life balance. Science is a lifetime endeavor.

Today, you become alumni of Icahn School of Medicine at Mount Sinai. I am confident you will carry on the tradition of a great institution.

In that tradition –

- Promise me, as clinicians on the frontlines of medical care, you will **IMAGINE, PURSUE, AND PROVIDE INSIGHTS TO CRITICAL, UNANSWERED QUESTIONS.**
- Promise me, as scientists you will **CHALLENGE CONVENTION AS YOU INVENT THE FUTURE OF MEDICINE**
- Promise me, day after day, you will **WORK TIRELESSLY to MAKE DISCOVERIES THAT ALLOW THOSE WHO SUFFER AND FALL ILL TODAY, TO LIVE HEALTHY LIVES AND THRIVE TOMORROW.**

Thomas L. Schwenk, M. (2018). Physician Well-being and the Regenerative Power of Caring. JAMA, 319(15): 1543-1544.