INSIDE Medicine

The Newsletter of the Department of Medicine

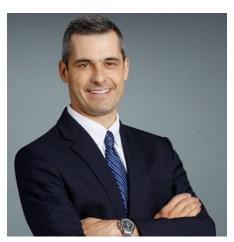
"Beneficence is a duty"

—Immanuel Kant

A Message from the Chair, Steve Abramson

As we continue to navigate through these troubling times of war and bigotry, it is important for us, as physicians, scientists, trainees, and staff, to pause and reflect upon the values we hold in common. *Beneficence*, derived from the Latin phrase "the doing of good" or "the act of being kind," comes to mind. As physicians and health care providers, we are guided by the principle of beneficence, prioritizing the well-being of our patients above all else. In the face of the ongoing crisis in the Middle East, it is crucial that we extend this same beneficence to our community. We have come together in the recent past through the existential challenges of Superstorm Sandy and the COVID pandemic, by common commitment to our patients. The current crisis is unique, a distant conflict, but for many, deeply personal. Therefore, as we continue our shared commitment to the missions of the medical school we must also be sensitive to the distress of many of our colleagues. Beneficence, empathy and understanding will be essential in preserving the shared spirit that makes NYU such an exceptional institution. As we approach Thanksgiving, let us not only express our gratitude for these defining values but also actively embody them in our actions.

Happy Thanksgiving and thank you all!



Marc Triola, MD, FACP

The Advisor Is In

For centuries, medicine has been advanced through novel technologies, methods, and inventions. What once seemed impossible-pacemakers, penecillinis now fully embedded in everyday practice. Even today, medicine continues to rapidly evolve as new developments arise. Take, for example, artificial intelligence (AI). In recent years, we've seen AI begin to saturate our everyday lives-whether we ask Siri for directions, or Alexa to play a song. Next, then, is question: the natural how will AI impact medicine? We're already beginning to see it's integration into medical practice—our last issue

covered a recent AI Prompt-A-Thon, and perhaps you are curious about how to use AI tools or where NYU

Langone Health is positioning itself within the AI space. For more insight, we spoke with Dr. Marc Triola, associate dean for educational informatics, professor of medicine, and the founding director of the Institute for Innovations in Medical Education (IIME). Established in 2013, IIME is a multidisciplinary team of faculty educators, education scientists, informaticians, and developers who apply the science of education and informatics to transform teaching, learning, evaluation, and assessment at every level of NYU Langone.

How can NYU Langone faculty and staff leverage AI tools for their work? Are there resources available for those who would like to make use of these tools but need some guidance?

NYU Langone is at the forefront of adopting AI tools and developing new AI technologies. The MCIT Department of Clinical Informatics offers a secure and HIPAA-compliant version of ChatGPT for our use and experimentation (apply for access here). There are also weekly office hours to get help and advice (sign up here), and the Health Sciences Library now offers courses in how to use ChatGPT and write good prompts (sign up here). If you are looking to keep up with the latest news and advances in AI, I have several suggested resources on this page: https://ai.iime.cloud/.

Can you share some examples of AI being used to enhance programming across the clinical, research, and education missions at NYU Langone Health?

Al is already beginning to transform how we care for patients and teach our students. This is not a new phenomenon; in fact there are over <u>500 FDA approved Al diagnostics and therapeutics</u> already in use. Our vision is that the majority of all text written (both clinical and operational) at or for NYU Langone will one day pass through an equitable and ethical AI to improve quality, efficiency, and safety of all of our missions. NYU Langone has begun piloting Al-authored drafts of Epic inbasket messages, Al-generated hospital course summaries, new decision support tools that evaluate discordance between the documented plan and the actual orders, and the use of AI to analyze the massive data of our EHR. NYU is also experimenting with "ambient documentation," a system that listens to the spoken conversation between a physician and patient, transcribes the text, and then automatically creates a first-draft of the note. At the medical school, we are using AI to give students targeted education customized to each of their clinical experiences, summarize evaluations to provide guidance to faculty, and even create assessment items automatically from teaching materials.

We're seeing increased use of AI to complete tasks and carry out programs across the system. How do you see AI being used five years from now?

Al is advancing fast. In five years we are certainly going to see ubiquitous AI (it's already being added to our EHR, Word, PowerPoint, email, etc.). Future AI models will be multimodal and able to understand images and video in addition to just text. We are also likely to see models that are designed for a specific task or clinical specialty, as opposed to systems like ChatGPT that try to cover everything. Some things we will certainly see in five years are academic institutions like NYU Langone overcoming the current challenges of AI now. These include understanding biases present in the data used to train AI systems, better explanations of how they work, and ensuring the results they produce are safe and accurate.

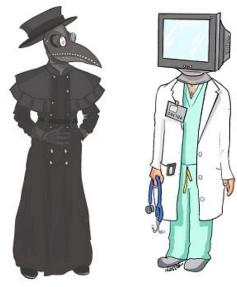


Illustration by Michael Natter, MD



Dean's Honors Day

Nancy Amoroso, MD

On Wednesday, October 11, colleagues from across the institution gathered for Dean's Honors Day. More than 100 faculty members were awarded tenure, received promotions or named professorships, or were elevated to chair or institute directors.

"Our people build and reinforce our culture of exceptionalism, our people make discoveries and push boundaries, and our people take us from 'good enough' to best in the nation," said Dean and CEO Robert I. Grossman, MD, in kicking off the event. "And you, our talented faculty, are an indispensable part of our meteoric rise."

Three members of the faculty were named Master Clinician, Master Educator, and Master Scientist in recognition of their professional achievements and enduring impact on NYU Langone. Our own Nancy Amoroso, MD, was named Master Clinician. Dr. Amoroso serves as director of the Medical Intensive Care Unit, medical director of Tisch/Kimmel 15th floor, and section chief of Pulmonary, Critical Care & Sleep Medicine at Tisch Hospital. Dr. Grossman presented the award, noting, "Beyond Covid-19, Nancy has positioned NYU Langone as a national leader in pulmonary care. She was integral to the development of

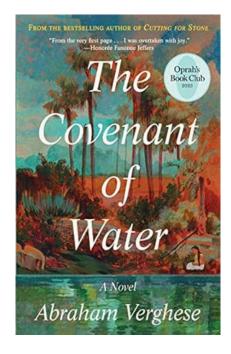
our ECMO program and has advanced key innovations in the treatment of pulmonary emboli. Her collaboration with the Transplant Institute to perform pre- and post-lung transplant care at Tisch 15 has helped make our lung transplant program number one in the country in outcomes." Congratulations, Dr. Amoroso, and all of our faculty who were recognized at the event.

What Are They Reading

I recently read Dr. Abraham Verghese's latest novel, *The Covenant of Water*. It is the story of an Indian Christian family over three generations, beginning with the marriage of a twelve-year-old girl who eventually becomes the matriarch of her family. The family is plagued by a mysterious medical condition (or curse?), and as some family members pursue medicine to find a cure, Verghese takes us through their experiences, intertwining science and mysticism. Against the historical backdrop of colonization and its lasting effects on India in the 1900s, we get to explore relationships, medical practice in limited environments, and cultural perspectives on conditions like opioid addiction and leprosy. And the novel is full of beautiful descriptions of lush Kerala. I was so excited when Dr. Verghese published his second novel, and the many-month long waitlist was worth the wait!



Ankita Agarwal, MD Clinical Assistant Professor, Division of Hospital Medicine Hospitalist Scholar Liaison

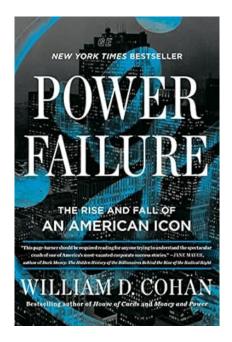


Many have written books about leadership, from Aristotle to Machiavelli to Gen. Stanley McChrystal. However, William Cohan's *Power Failure: The Rise and Fall of an American Icon* is less a 'how-to' guide than a story of success, hubris and collapse. In his exhaustive chronicle, the author describes the origin story of General Electric from the days of Thomas Edison; the rise of the company from power generators and light bulbs to the most valued and largest (by market capitalization) is enviable. And the author describes in detail the historic growth under the direction of CEO Jack Welch. This larger-than-life figure is lionized and clearly admired greatly by Cohan, despite his personal flaws. The transition to the next leader, in September 2001, begins the next phase of the Greek tragedy: the decline from greatness. Welch is often quoted with remorse about his successor, Jeff Immelt.

The contrast between the two is striking—and that is really the holding of the book, more so than the description of the breakup of GE as a conglomerate. Seeing how our own leaders at NYU Langone perform, and how important that is to the institution, brings Immelt's struggles a cautionary tale to a local level.



Brian Bosworth, MD Professor, Division of Gastroenterology Chief Medical Officer & Patient Safety Officer



The Historian Is In

The Hispanic Paradox



Between 2019 and 2021, the US suffered the most significant decline in longevity since the devastating Great Influenza of 1918. Life expectancy for the average American has fallen from 78.9 to 76.6. Pandemics like Covid hit hardest among those with poor access to health care, higher comorbid risk factors, and hazardous daily work in hospitals, factories, and public employment. As a result, Black and Hispanic

longevity dropped a full four years.

For the moment, the pandemic has obscured a major demographic mystery, the so-called "Hispanic Paradox." Until Covid hit, Hispanics had a life expectancy of 82.2, as opposed to 78.9 for whites, defying the standard logic that socioeconomic factors like wealth and education play as key role in determining major health outcomes and, in turn, the length of one's life. That gap today has narrowed to just over a year.

What factors favor such longevity? One theory suggests that the social networks and kinship structures among Hispanics are particularly strong. Family ties promote good health by protecting the most vulnerable members, especially the elderly. Hispanics also have a lower percentage of smokers (excluding Cubans and Puerto Ricans), and consume less alcohol than whites. Their diet relies more heavily on chicken and fresh vegetables, as opposed to red meat, and their work is more physically demanding—jobs that produce severe (though generally not fatal) disabilities later in life.

Perhaps the most controversial theory regarding the "Hispanic Paradox" relates to immigration. Throughout American history, those who came to the US tended to be younger and healthier than those who stayed behind. And the same holds true for Hispanics today. The end result is a community constantly replenished by fresh members. But there is evidence showing that the "healthy migrant effect" tends to evaporate as these people assimilate and acquire new habits—more alcohol and drug abuse, a worsening diet, increases in diabetes, obesity, and cardiovascular disease. It's a doubled-edged sword.

The key unknown, of course, is whether the longevity gap between Hispanics and whites will widen again as Covid hopefully fades. A host of intertwined factors—politics, immigration reform, and acculturation, among them—will determine the outcome, as will a somewhat hidden truth. Longevity for whites in America has flatlined. The figures have remained relatively static for years.

"Part of the story of the Hispanic Paradox," says one demographer, "is that the non-Hispanic white population is not doing as well as it should."

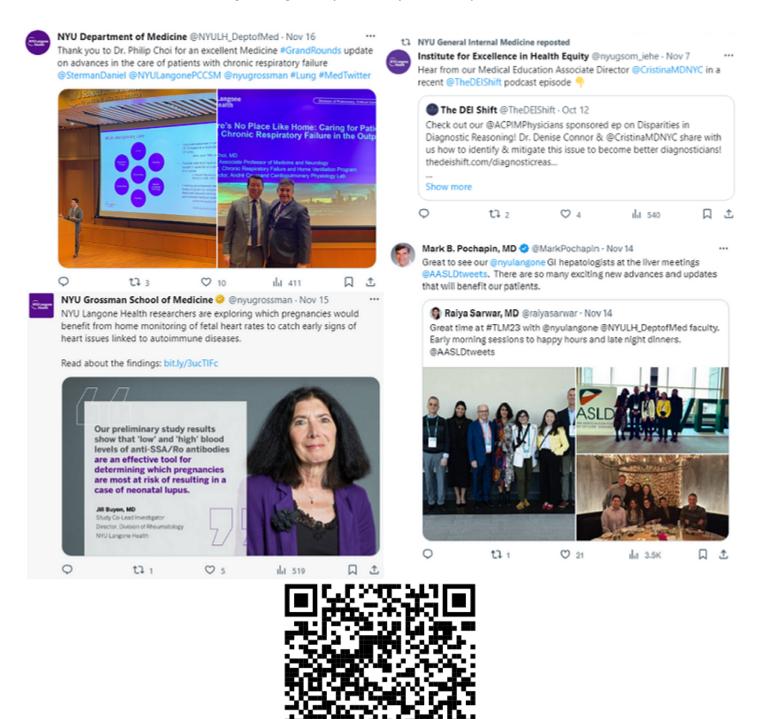


David M. Oshinsky, PhD Professor, Department of Medicine Director, Division of Medical Humanities

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The Digital Pulse

A roundup of select posts from our social media channels. Be sure to join the conversation, and don't forget to tag us as you share your accomplishments!



Follow our NYU Internal Medicine Residency on Instagram by scanning the QR code

Featured Student Essay

The Library

Throughout the past year as a medical student on the wards, I've come to know the morning rhythms of the

hospital well. I follow a stream of people clad in a rainbow of scrubs as it snakes from the front doors to the elevator bay. We stand together in silence, save the occasional yawn, as the elevator delivers us to our various floors and services for the day. The hallways lined with patient rooms are still dark and quiet as I enter the code to the resident workroom, my home base during the internal medicine clerkship. Inside, the lights are bright and keyboards clack as the interns dutifully update handoffs and replete electrolytes. I log into Epic and begin to do the same, studying the chart for new information on my patient, Ms. N. She presented with an array of conditions I'd previously only read about in preclinical lecture slides: a history of scleroderma and non-tuberculosis mycobacteria bronchiectasis, now with pulmonary hypertension and right heart failure. I begin to organize her data in my mind, synthesizing a story to communicate to my team on rounds. What were her oxygen saturation levels overnight? How much urine output after diuresis? Did her hemoglobin drop again? Each datapoint a piece of the puzzle I will attempt to put together, as I have been learning to do throughout the past three years. However, the final picture only comes into view during my favorite part of the morning routine: pre-rounding.

Before starting rotations, the idea of speaking with patients so early in the morning, only to do so again during rounds, was perplexing. However, I have grown to enjoy this ritual of protected time to speak with my patient before the day becomes hectic. That morning, I speak with Ms. N about her breathing, her appetite, and whether she's having any pain. Her legs have begun to ache after 3 weeks in a hospital bed but feel better when her husband massages them. She jokes that he's not as good as the ladies at her favorite pedicure salon. We review the plan for the day: a chest X-ray to evaluate her pleural effusions and talking with the pulmonary hypertension team about whether to start a new medication. An important addition: her sons will be stopping by this afternoon to bring her favorite soup.

One week later, I've said goodbye to Ms. N and moved onto a new clinical site. The days churn on: handoff, chart review, pre-rounds, rounds, notes, afternoon teaching. In the evening, I crack open my laptop and begin a block of practice questions to prepare for my upcoming shelf exam. Each question stem describes a patient with age, sex, chief complaint, and their presentation. Sometimes with lab data, sometimes imaging. A forty-five-year old female presents with three months of exertional dyspnea and nonproductive cough. She's had Raynaud phenomenon for two years, and the skin over her hands and face is thick and firm. As I continued to read the question stem, Ms. N's face materialized in my mind. I could see the high

flow nasal cannula hanging from her cheeks, dotted with lacy red telangiectasias. The tight skin over the fingers of the hand that I held upon saying goodbye. Sure enough, the answer to the question lied in understanding pulmonary arterial hypertension in scleroderma.

To be a medical student means constantly expanding our repertoire of knowledge on human disease. The constellations of symptoms, exam findings, labs and imaging, coalesce together into illness scripts for each disease I encounter. These scripts are filed away, to be retrieved when faced with a patient who presents with a reminiscent pattern, much like a book checked out of a library when the topic intrigues a reader. Prior to my time on the wards, my mental library of medicine was primarily constructed from lecture slides, Amboss articles, and Anki cards. Stories of life were sparse in comparison to descriptions of the underlying mechanics. Now, as I near the end of clerkship year, my library has come to life with tales of the patients I've encountered, their faces coloring the shelves. Pathophysiology becomes contextualized by and intertwined with personalities and livelihoods. When I think about cellulitis, I remember my patient who enjoyed gardening and writing children's books in his retirement. When I think about myocardial infarction, I see my patient who insisted I visit the focaccia shop in Greenpoint, just down the block from her apartment. When I think about opioid use disorder, I think about my patient who described how connecting with his son over their love for boxing helped him maintain his sobriety.

My experiences over the past year have been professionally transformative in many ways. I've learned to write notes, present on rounds, call consults. However, I believe the most profound transformation lies in the addition of faces to my mental medical library. This is what makes the practice of medicine human, what makes all the accumulation of knowledge mean something. As I near the end of my rotation on the medicine service, I'm prompted to reflect on this unique time in my training, where I remember each patient and what I learned by partaking in their care so clearly. Perhaps someday the entries in my library will grow so large that the recognition of illness scripts no longer prompt such vivid imagery of the patient whose path I was honored to cross. However, much like our favorite literature stays with us, the lessons of these formative relationships at the foundation of my career in medicine will shape my path forward. Each time I speak with my patient in the quiet hours of the morning, data springs to life and takes on new magnitude. This experience feels uniquely salient when so much is still new to me. As I continue along my journey in medicine, I'm humbled and eager to expand my library of knowledge, transformed by stories and faces.

Caitlin Kearney is a third-year medical student at New York University Grossman School of Medicine. She grew up in Minneapolis, Minnesota, and graduated from Georgetown University in 2021 with a BS in Biology of Global Health. At NYU, Caitlin has engaged in dermatology research, served as co-president of the Dermatology Interest Group, promoted student wellbeing with the Student Wellness Committee, and volunteered with the New York City Free Clinic. She enjoys practicing yoga, plantbased cooking, watching the Minnesota Wild, and exploring all New York has to offer with her friends and classmates.



News & Awards

Faculty Honors



Celine Grounder, MD was elected to the National Academy of Medicine. Read about this honor in <u>Cision PR Newswire</u>.

John Hwang, MD received the UME Pre-Clerkship Educator of the Year Award at NYU MedEd Research Day.

Judy Hochman, MD received the American Heart Association Distinguished Scientist Award. The American Heart Association recognizes six outstanding investigators nationally with the Distinguished Scientist Award for their significant contributions to cardiovascular research.

Ann Marie Schmidt, MD delivered the 2023 George Lyman Duff Memorial Lecturer at the American Heart Association Scientific Sessions, held November 11–13, 2023 in Philadelphia, PA. The Duff Lecture is one of three ATVB named lectures presented annually at the American Heart Association's Scientific Sessions. Honorees are selected by ATVB Council leadership and are invited to present a lecture on a topic of their choice.



Kelly Ruggles, PhD was named a 2023 National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Team Science Leadership Scholars Program (LSP) in Women's Health, Autoimmune and Immune-Mediated Diseases Scholar for her project, "Developing and Leveraging Multi-Omic Approaches to Elucidate Early Disease Pathogenesis in Lupus Nephritis." Learn more about the program <u>here</u>.

Kudos to Recent NIH Awardees

Marlena Habal (Cardiology): Safety and efficacy of Belatacept in heart transplantation (\$1,698,927)

Jonathan Newman (Cardiology), mPI Kelly Ruggles (Precision Medicine): Molecular predictors of cardiovascular events and resilience in chronic coronary artery disease (\$818,429)

Joshua Chodosh (Geriatrics): EDs LEading the Transformation of Alzheimer's and Dementia Care (ED-LEAD) (\$54,937,036)

Sam Parnia (Pulmonary/Critical Care/Sleep Medicine): Neuroprotection following cardiac arrest: A Randomized Control Trial of Magnesium (\$254,018)

Leopoldo N. Segal (Pulmonary/Critical Care/Sleep Medicine), mPl Harvey Pass: Microbial and host biomarker development for detection and prognosis of early stage non-small cell lung cancer (\$1,151,339)

Other Awards

In partnership with Dr. Josh Lee and population health, **DGIMCI** was awarded a \$2.4 million grant from the New York State Office of Addiction and Services and Support to support a new workforce development and fellowship program. NYU is one of four medical schools across New York State to receive this grant.

Presentations at National Meetings

Division of Rheumatology faculty and housestaff with the recently attended the American College of Rheumatology annual meeting, held in San Diego from November 10-15. Their work included oral presentations from:

Abhimanyu Amarnani (a T32 trainee & 2nd year fellow)

Rebecca Haberman (rising junior faculty)

Jasmie Shwetar (MD/PhD student and T32 trainee)

Mala Masson (Sr. Research Project Manager on Dr. Buyon's team)

Philip Carlucci (current resident, future NYU Rheumatology fellow)

Additionally:

Drs. Buyon, Pillinger, Scher, & Silverman were each invited speakers.

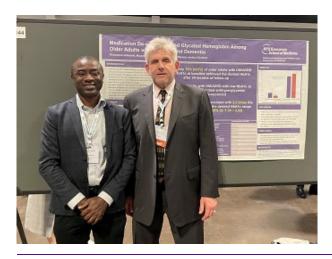
Drs. Pillinger, Samuels, Scher, & Toprover served as guided poster tour leaders.

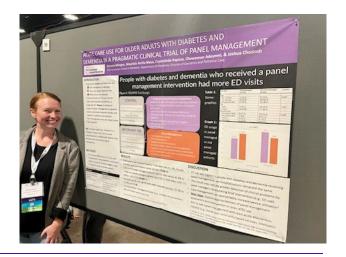
Drs. Reddy, Scher, Silverman, & Toprover each moderated sessions.

30 faculty and staff members from the Division of Infectious Diseases & Immunology attended ID Week 2023 in Boston from October 11-15. Along with eight poster presentations, attendees moderated sessions and lead discussions throughout the week.



Joshua Chodosh, MD, MSHS and Brianna Morgan, PhD, CRNP, ACHPN, of the Division of Geriatric Medicine and Palliative Care, attended the annual Gerontological Society of America meeting in Tampa from November 8-12. In addition to moderating sessions, they presented posters on the EQUIED study (PI: Chodosh).





Events & CME

The NYU BOLD Public Health Center of Excellence on Early Detection of Dementia (co-lead by Joshua Chodosh, MD, MSHS) hosted a webinar on Health System Interventions to Advance Early Detection of Dementia. Watch the webinar <u>here</u>.

Patient Experience Bookclub:

The One Hundred Years of Lenni and Margot by Marianne Cronin Tuesday, November 28th 12:00-1:00pm via <u>Webex</u>

19th Annual Irwin D. Mandel Advances in Cardiovascular Risk Reduction: Improving Treatment for Patients with Diabetes December 7th Learn more <u>here</u>

9th Annual NYU Langone Advanced Seminar in Psoriasis & Psoriatic Arthritis December 8th Learn more <u>here</u>

SAVE THE DATE: Transforming Hospital Medicine Through the Care Continuum: Innovations in Patient Centered Care

March 6th-7th, 2024 Submit Abstracts by December 1st <u>here</u>



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