



Taking a Deep Look at the Aging Process in World Trade Center General Responders

In the more than 20 years since the World Trade Center attacks on September 11, 2001, many studies have documented the high levels of disease among general responders as well as respiratory and mental health disorders. Little attention has been paid to how these rescue and recovery workers are aging, and if their heroic actions at Ground Zero have rendered them more vulnerable to the natural consequences of aging.

Investigators at the Brookdale Department of Geriatrics and Palliative Medicine have been working intensely to bridge that knowledge gap, knowing full well that the toxicants and psychological trauma that many responders were exposed to can significantly alter their aging process.

Drawing on data from the World Trade Center Health Program at Mount Sinai and funded by grants from the Centers for Disease Control and Prevention, researchers are conducting a host of studies that suggest the general responder population is indeed more likely to experience premature aging, as evidenced most notably by frailty and its associated health declines.

“There’s a pressing need to characterize, assess, and monitor the development of age-related syndromes among this cohort since their WTC exposures can change the trajectory of their aging,” says Fred Ko, MD, MSCR, Associate Professor in the Brookdale Department, and an investigator on the WTC series of studies. “We’ve found that frailty is highly prevalent in the general responder population and can occur at an earlier age, which can

seriously impact the quality of life for these individuals as well as increase their risk for mortality and morbidity.”

A number of healthy aging interventions, such as exercise, nutritional supplementation, cognitive training, behavioral therapy, and reduction in the number of prescribed medicines, have been shown to be effective in reducing the burden of frailty in the general population. These potential interventions will be tested in frail WTC responders by Dr. Ko along with other co-investigators William Hung, MD, MPH, Professor in the Brookdale Department; Michael Crane, MD, MPH, Professor in the Department of Environmental Medicine and Public Health; and Katherine Ornstein, PhD, MPH, Professor, Johns Hopkins School of Nursing.

As important in managing the health trajectory of aging responders is the need for early intervention. “The results of our studies will be used by clinicians caring for WTC responders to identify pre-frail individuals at risk for further decline in order to intervene early and preserve their quality of life,” says Dr. Ko. “The improvement in long-term health of aging general responders from such a proactive approach could be considerable.”



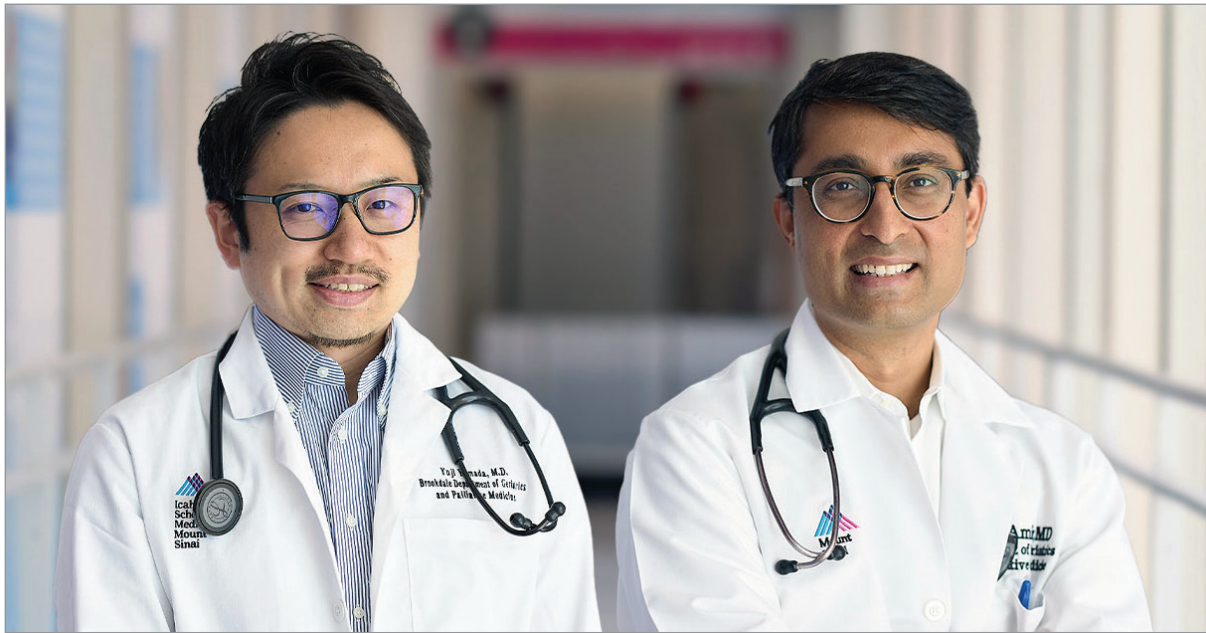
Sharing Care: Mount Sinai Teams Co-Manage Trauma Care for Older Adults

At Mount Sinai Morningside, older adults who have experienced physical trauma can expect comprehensive care that extends beyond their injuries.

In an innovative program launched in October 2022, more than 200 individuals aged 65 and older who have arrived at the hospital with injuries such as bone fractures, internal injuries, or bleeding have received care from specialist teams of surgeons and geriatricians working together to improve outcomes. Trauma surgeons attend to the injuries, while geriatric specialist teams comprehensively manage their other medical and functional needs.

This “co-management” model has been gaining ground in recent years, with the recognition that diseases such as cardiovascular disease, diabetes, and cognitive impairment are extremely common in older adults and may worsen during the experience of trauma and hospitalization if not treated appropriately. “We treat the medical issues while the trauma team focuses on the surgical repair. Also, because older adults can develop complications while in the hospital, we assess all the potential risks of complications and work proactively to prevent them. We share the responsibility of care,” says Yuji Yamada, MD, Assistant Professor in the Brookdale Department of Geriatrics and Palliative Medicine.

Dr. Yamada and colleagues screen for delirium, review medications, manage pre-existing illness, and assist with transitions out of the hospital. This approach contrasts with the traditional “consult” model, where the surgical team takes full charge of the patient and may only call in a specialist if a problem arises, says program co-



Yuji Yamada, MD, and Omar Amir, MD, MS

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director Omar Amir, MD, MS, Assistant Professor in the Brookdale Department. “In the past, we would give recommendations about the narrow issues we were consulted on, and the primary service may or may not implement them,” he says. “Studies have found

that only about 50 percent of consult model recommendations are actually implemented.”

The co-management model is quite different, according to Dr. Amir. “We get involved at hospital admission and we stay involved throughout

the entire hospital course. Our scope of intervention is much broader,” he says. “And it really is a true partnership between the primary service and the geriatrics co-management service. We’ve developed a structure that allows us to have very close communication and high levels of trust.”

Dr. Yamada is collecting outcomes data on Mount Sinai’s co-managed trauma patients and plans to present and publish them for other institutions to replicate. Additional future plans include data collection for the newer orthopedics co-management, introduction of co-management into other surgical services and possibly interventional cardiology, and expansion of this work to other Mount Sinai locations.

Provider Spotlight: **Omar Amir, MD, MS**

Medical Director of the Age-Friendly Acute Care Unit at **Mount Sinai Morningside**

As Medical Director of the Age-Friendly Acute Care Unit at Mount Sinai Morningside, Omar Amir, MD, MS, works to improve the lives of older adults and their loved ones. He has implemented geriatric standards of care across the hospital, protocols for safe transitions of care, and innovative interdisciplinary projects across specialties, such as the Geriatrics Trauma Consult/Co-Management Team. Due in part to Dr. Amir's clinical initiatives, Mount Sinai Morningside has received ongoing recognition from the Institute for Healthcare Improvement as an Age-Friendly Health System.

In addition to his dedication to clinical care, Dr. Amir works to advance health

equity, particularly with Native American populations and those disproportionately affected by age-related conditions due to the lack of accessible high-quality care. In fact, as part of his efforts to promote diversity, equity, and inclusion, Dr. Amir established a partnership between the Mount Sinai Health System and the Indian Health Service in rural South Dakota, in which he has demonstrated the benefit of extending models of remote geriatrics education and clinical support to clinicians working in rural and underserved communities.

When asked by students why he chose to pursue a career in health care, he stated his vision: "When you are engaging in

medicine at its fullest, you are continuously engaging intellectually and in an intensely relational way with others.

I see this as the source of meaning in life. It is a challenging but deeply rewarding field," he says. "There is nothing like it in the whole world."



Kudos: Special Faculty Awards and Achievements

The Brookdale Department of Geriatrics and Palliative Medicine received esteemed recognition in the *U.S. News & World Report*® Best Hospitals 2023-2024 survey: The Mount Sinai Hospital is ranked No. 1 in Geriatrics in the nation for the fourth consecutive year; Mount Sinai Morningside and Mount Sinai West together are ranked No. 31; and Mount Sinai Beth Israel is ranked No. 47.

Claire K. Ankuda, MD, MPH, MSc, was recognized with the 2023 American Federation for Aging Research's (AFAR) Terrie Fox Wetle Rising Star Award in Health Services and Aging Research.

Joyce Fogel, MD, was appointed vice president of the Metropolitan Area Geriatrics Society.

Joyce Fogel, MD, Fred Ko, MD, Rosanne M. Leipzig, MD, PhD, Karen Levine-Tanco, MD, and Ravishankar Ramaswamy, MD, were named Geriatrics "Super Doctors" by *The New York Times Magazine*.

Ravishankar Ramaswamy, MD, received an Outstanding Committee Service Award for his work on the American Geriatrics Society Education Committee.

Rebecca Rodin, MD, was awarded a five-year Clinician Scientist Development Grant from the American Cancer Society to support research on the unintended impact of the Center for Disease Control's 2016 opioid prescribing guideline on disparities in pain management among older adults with cancer.

Engaging Medical Students in Aging Research

Educational initiatives within the Brookdale Department of Geriatrics and Palliative Medicine aim to provide every clinician with the skills they need to care for older adults and to increase the geriatrics and palliative medicine workforce. Funded by the National Institute on Aging, the Medical Student Training in Aging Research (MSTAR) program meets both aims.

The MSTAR program provides short-term training to medical students with the goal of encouraging them to consider careers in aging research. After their first year of medical school, selected MSTAR students collaborate with mentors to learn fundamentals, such as how to formulate precise research questions, design robust studies, and employ statistical methods. MSTAR students also shadow geriatricians to learn hands-on skills and see what it is like to care for older adults. “The program is designed to enable students to develop and complete a research



project from start to finish,” says Melissa Aldridge, PhD, Vice Chair for Research in the Brookdale Department, who leads the program along with Rainier Soriano, MD, Senior Associate Dean for Curricular Affairs in Medical Education at the Icahn School of Medicine at Mount Sinai. “Our students bring both the clinical and research skills to every patient they encounter throughout their training and careers.”



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