

A tribute to Tadataka “Tachi” Yamada

The world lost a leader in medicine, public health, and global health on August 4, 2021 when Tadataka “Tachi” Yamada passed away at the age of 76 (Figure 1). Tachi was a scientist, an entrepreneur, an outstanding mentor, a leader in academic medicine and global health, and an industry pioneer — but when friends, family, and colleagues remembered him publicly after his passing, the word most frequently used was “kind.” Regardless of what his professional position was at the time, Tachi was first and foremost a physician, always thinking about how his work could make the world a better, fairer, and healthier place.

Tachi was born in Japan in 1945, and reflected that he always wanted to be a physician after hearing stories about his grandfather, who was also a physician (1), when he was a child. Tachi immigrated to the United States at age 15, received his bachelor’s degree in history at Stanford University, and his MD from New York University. He completed his residency at the Medical College of Virginia, where he first became interested in gastroenterology (1). He then completed a gastroenterology fellowship at UCLA, where he studied with “one of the fathers of modern gastroenterology, Morton Grossman” (1), and subsequently accepted a position at the University of Michigan, where he was the chief of gastroenterology and then the chairman of medicine. David Ginsburg, James V. Neel Distinguished University Professor at the University of Michigan Medical School, remembers his time working with Tachi fondly: “[Tachi] was my ‘boss’ as the Chair of Medicine, and one of the key factors that kept me at the University of Michigan for my whole career. Tachi was a ‘triple threat’ and the quintessential physician scientist — he will be sorely missed.” During his tenure at the University of Michigan, Tachi conducted seminal research that led to the development of H₂-receptor blockers, now prescribed widely, as well as the development of proton pump inhibitors,



Figure 1. Tadataka “Tachi” Yamada, MD. Image credit: Amy Hart Photography, National Academy of Medicine, reproduced with permission.

which are used regularly to prevent gastric ulcers. The University of Michigan noted that “the impact from Dr. Yamada’s basic science work is enormous, [and] his work tied genetics to physiology elegantly and in a way that transformed patient care” (2).

While still at the University of Michigan, Tachi agreed to serve on the board of directors at SmithKline Beecham, and during that time realized that “making medicines is maybe the hardest task in biomedical science” (1). This realization led him to accept a position as Chairman of Research and Development at GlaxoSmithKline. As an “outsider” to pharmaceutical development, Tachi was able to identify areas of redundancy and where bureaucracy was creating inefficiencies. His insights helped GSK nearly double its portfolio of pharmaceuticals in development (1). In 2000, Tachi began fundraising for a laboratory within GSK that would develop medicines for tuberculosis and malaria and focus on “mak[ing] medicines without worrying about whether we make money or not” (1). It was his work in developing medicines that would

benefit those often overlooked by for-profit health care that led him to the Bill & Melinda Gates Foundation, where he became President of Global Health.

While at the Gates Foundation, he oversaw a \$9 billion portfolio focused on improving health in under-resourced countries. His work at the Gates Foundation, specifically the creation of the Grand Challenges Explorations and his focus on impact and metrics, helped catalyze significant and measurable improvements in enormous problems that may have otherwise felt insurmountable. For example, one of the first Grand Challenges grants funded the development of a live attenuated vaccine for malaria that may be able to cover gaps left by the only malaria vaccine in widespread use, which appears to prevent only 30% of serious cases (3, 4). Melinda French Gates, co-chair of the Bill & Melinda Gates Foundation, in a tweet, remembered Tachi’s impact: “Dr. Tachi Yamada was one of my first global health teachers. Even when running large organizations, he never stopped thinking like a doctor, responsible to each patient. He saw the infinite worth in every person and worked tirelessly to keep them all healthy” (5).

When Tachi immigrated to the United States, he promised his father that he would eventually return to Japan. Leveraging the lessons he learned at the Gates Foundation, Tachi accepted a position at Japan-based Takeda Pharmaceuticals, noting that he was destined to return to pharmaceutical development because “there is no more cost-effective solution for health problems than a pill or a vaccine” (1). Tachi served as Chief Medical and Scientific Officer and Executive Vice President at Takeda, where he shepherded the launch of Takeda Vaccines, which is in the late stages of developing the second vaccine ever created to prevent dengue fever (6). After leaving Takeda, Tachi was a Venture Partner at Frazier Healthcare Partners, as well as holding leadership positions in a number of pharmaceutical and health care-focused startups.

Tachi’s impressive professional career saw him cross from basic science to academia, to industry, to nonprofits, and then

to venture capital. His many accomplishments were not achieved in solitude; he touched countless lives across his remarkable career. Importantly, Tachi's sustained commitment to his colleagues, his friends, and especially those he mentored is one of the qualities he is best remembered for. Juanita Merchant, chief of the division of gastroenterology and hepatology at the University of Arizona College of Medicine, wrote that "I would not be where I am today without Tachi — he was my mentor, even to this day. I did not know anyone in Ann Arbor when I started [at the University of Michigan], and he said I had an open invitation to have dinner with he and his family every Sunday — I certainly took him up on that invite."

Tachi's leadership in global health was formally recognized across his career, as he received awards and accolades from countries across the globe. Tachi was awarded the title of Honorary Citizen of Singapore in 2016, after working with the government of Singapore to help shape the development and growth of the country's health and biomedical sciences research and innovation ecosystem for more than 15 years. Professor Tan Chorh Chuan, Chief Health Scientist in Singapore's Ministry of Health, remembered his long relationship with Tachi — "Over the 2 decades of our friendship, I have been constantly amazed and inspired by Tachi's unwavering passion for translational medicine, his infectious 'can do' attitude, and the generosity of his spirit. He was a true friend of Singapore, and his legacy lives on through the many lives he touched, the generations of scientific leaders he mentored, and the high and enduring impact of the initiatives he directly led and guided."

Other colleagues fondly recalled Tachi's diplomatic, clear, and fair manner of conducting himself. Mark Fishman, Professor of Stem Cell and Regenerative Biology at Harvard University, who served on the National Academy of Medicine (NAM) Council with Tachi, recalled, "Even during heated discussion, Tachi always made it clear we were on the same team — one dedicated to clarity of vision and the building of a more humane society." Mary Woolley, President and CEO

of Research!America, who also served on the NAM Council alongside Tachi, reflected, "Many times I observed Tachi patiently listen to a spirited group discussion and then calmly offer the key to the next step — the resolution that had been eluding the rest of us. He has the ability to put his finger right on the crux of the matter or the hard truth that we hadn't wanted to face. He never walked away from a challenge."

Despite an extremely busy career, Tachi always found time to give back. Tachi was an elected member of the Association of American Physicians (AAP), and served as AAP's President from 2004 to 2005; served as President of the American Gastroenterological Association; and was an elected member of the American Society for Clinical Investigation, among many other high honors, including his election to the NAM in 1994. He served on numerous committees across the National Academies and was a member of NAM Council from 2011 to 2017. He brought his expertise in global health to the work of the NAM, co-chairing a series of workshops to develop a Global Health Risk Framework in 2015 and co-chairing the work that led to the development of the NAM's Healthy Longevity Global Grand Challenge. The Grand Challenge is indebted to Tachi's leadership and willingness to take a risk on innovative ideas that might sound impossible at first, but might also lead to revolutionary advances. It was during Tachi's time on the Council, between 2011 and 2017, that he and I had the opportunity to work closely together, beginning as fellow Councilors, and then when I was elected President of the NAM (then the Institute of Medicine) in 2014. Tachi was an important counselor to me during my first years as President, especially during the transition from the Institute of Medicine to the NAM in 2016. He served as Vice Chair of the Council and was always pushing the NAM to do more, be better, and lead fearlessly. To say that Tachi will be sorely missed would be a significant understatement, and the impact he has made on the NAM, health, health care, and global health will live on.

Tachi was a brilliant man, a skilled physician, and had a clear vision for how we can develop and implement better, more efficient, and more effective health

and health care interventions. But even more importantly, Tachi was a kind and thoughtful friend and mentor who was entirely committed to helping others, whether it was through sustained mentorship, diplomatic leadership, or hard work to develop vaccines and therapeutics that could make people's lives better, easier, and healthier. When I asked Bob Horvitz, Investigator at the Howard Hughes Medical Institute and professor of biology at the Massachusetts Institute of Technology to recall what he most appreciated about Tachi, he said, "Tachi was truly remarkable. He did not suffer fools gladly. I will miss his quick wit, soft-spoken yet commanding presence, and deep commitment to innovation in biomedicine. But most of all, I will miss his friendship."

So will we all.

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