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PRESENTS

OF **Giants**
Cancer Care

2021



HONORING PIONEERS WHO
SHINE BRIGHTEST
IN CANCER CARE

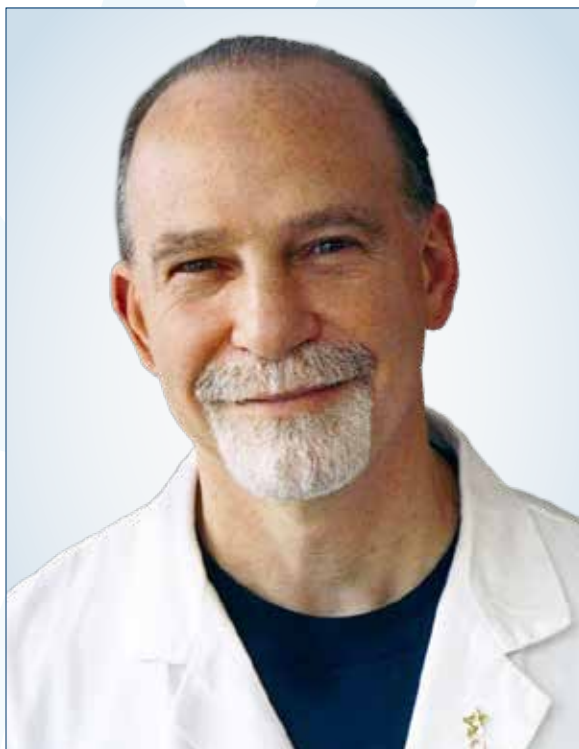


OneLive
PRESENTS

Giants
^{OF} *Cancer Care*

The Ninth Annual Giants of Cancer Care[®] campaign celebrates the achievements of leading physicians and investigators who have devoted their time, talent, and resources to improving care for the many patients and their families affected by cancer. Their discoveries have propelled the field forward and established the building blocks for future advances.

Recipients of the 2021 awards demonstrate the qualities that distinguish them from others: unlimited selflessness, compassion for their patients, and a desire to understand and develop life-changing treatments against a disease that afflicts so many.



Steven T. Rosen, MD

*Provost and Chief Scientific Officer
Irell & Manella Cancer Center Director's
Distinguished Chair
Morgan & Helen Chu Director's Chair
of the Beckman Research Institute
Director, Comprehensive Cancer Center
Director, Beckman Research Institute
City of Hope*

“I still have about 250 active patients with blood cancers, and every single one has my cell phone. I do everything in real time....That connection is very important and meaningful for me.”

Empathy Matters Most

A unique sensitivity to the human experience drives Steven T. Rosen, MD, to leave no stone unturned to find the best care for every patient.

by **JAMIE CESANEK**

Years before becoming an outstanding leader in the world of hematologic research, Steve T. Rosen, MD, thought he might pursue sports writing. At the time, he was an undergrad at Northwestern University in Evanston, Illinois.

It was the early 1970s, and the country was brewing with unrest related to the Vietnam War. The school closed due to the turmoil, and students weren't sure when, or if, it would reopen. Having nothing better to do, Rosen tagged along with his roommate and a childhood friend for an introductory meeting out of boredom. That decision changed the trajectory of his life.

The meeting was for a 6-year honors medical program that allowed students to go directly from college to medical school without having to take a Medical College Admission Test. It turned out that Rosen had among the highest grades in chemistry and math, so he was called in to interview for the program.

"I sort of told a white lie that I was interested in medicine," Rosen recalled. "I really had never thought about it ever. A few days later, I was accepted into this program."

He phoned his parents immediately to share the news, thinking he would be attending medical school the next year. However, in the summer before what would have been his first semester of medical school, he felt he wasn't mentally prepared and decided to petition to stay in college for an extra year. He spent the year taking literature and economics classes and completing an independent study with a developmental biologist. The extra year, he says, made him a more well-rounded individual who had more knowledge about life issues.

"Clearly the exposure and research were very stimulating and rewarding," Rosen added.

FINDING HIS PATH

After attending what is now the Northwestern University Feinberg School of Medicine, Rosen



Steven T. Rosen, MD, with members of his laboratory at City of Hope.

completed a residency program in internal medicine at the school's McGaw Medical Center. At the time, he still wasn't sure what direction he wanted to go with his career. Rosen briefly considered cardiology, but he says that, truthfully, he had not given it much thought.

"But then one of my closest childhood friends lost a leg to a sarcoma," Rosen said. "And as a result, that motivated me to go into oncology."

He had also become interested in hematology after his time at Northwestern working with 2 hematologists who were a huge inspiration to him: David Green, MD, and Hau Kwaan, MD, PhD. Both were talented and accomplished investigators, but Rosen was most impressed by their devotion to patient care.

He made up his mind too late to apply for any of the traditional oncology programs. But at the last minute, he found out that the National Cancer Institute (NCI) in Bethesda, Maryland, had an opening. He completed a fellowship in medical oncology there, gaining important laboratory exposure and clinical experience under the mentorship of John Minna, MD, and Paul A. Bunn Jr, MD, both Giants of Cancer Care® winners in lung cancer.

Rosen later returned to Chicago to work at Northwestern once again. His wife at the time, Candice, a nurse whom he met at a Halloween party during his senior year of medical school, had family in that area and the couple wanted to be closer to her parents as their family

grew. The Rosens already had 1 child, with another on the way.

He began working as a physician in the Division of Hematology/Oncology at Lakeside Veterans Administration Medical Center, where he oversaw clinical activities related to the oncology program and started his own laboratory. He also began working as an assistant professor in the Department of Medicine at Northwestern and later became the Genevieve Teuton Professor of Medicine at Feinberg.

LEADER AND TEAM PLAYER

In 1989, Rosen was appointed director of what is now the Robert H. Lurie Comprehensive Cancer Center (RHLCCC) of Northwestern University. Under his leadership, the center regained a grant from NCI that had previously been lost and provided funding to build nationally recognized programs for clinical research. Rosen also helped RHLCCC become an NCI-designated comprehensive cancer center in 1997. Today, there are just 51 such facilities in the country.

After 25 years at Northwestern, where he made his mark as a leader and research pioneer, Rosen was approached by City of Hope in Duarte, California, about a position. He was ready for a new challenge and accepted, joining some of the leading figures in cancer care and research there, most notably chief clinical officer Alexandra Levine, MD, an internationally renowned expert in lymphoma and AIDS-related malignancies, and his



Rosen, center, pictured with his 4 children. From left: Jennifer, Nicholas, Natalie, and Melissa.



Rosen holds his granddaughter, Lili.

personal hero and role model in the field, Stephen J. Forman, MD. Rosen is now the director of the Comprehensive Cancer Center as well as provost and chief scientific officer at City of Hope, and leads the Beckman Research Institute.

“They gave me the resources to recruit incredible talent, and the place has just been a phenomenal opportunity to see discoveries that make their way to the clinic,” he said of City of Hope. “It’s in the forefront of precision medicine and cellular therapeutics, and I’m surrounded by the most gifted colleagues. It’s all been wonderful.”

One of Rosen’s proudest accomplishments in the lymphoma world was helping to develop the paradigms of therapy for cutaneous lymphomas. Oncology research is a team sport, and Rosen worked with several colleagues to develop modern treatment approaches and to create a better understanding of the disease. These colleagues—including Leo I. Gordon, MD; Jane N. Winter, MD; Andrew M. Evens, DO, MSc; Joan Guitart, MD; Timothy M. Kuzel, MD; and Christiane Querfeld, MD, PhD—still inspire him to this day.

“They were fantastic colleagues, collaborators, and role models,” he said. They influenced him through “a combination of their great intellect and sincere commitment to helping patients and advancing the field through their research.”

Rosen’s other extensive and impressive feats in the oncology world include leading pivotal research into apoptosis inducers, proteasome inhibitors, and metabolism inhibitors to promote

“Don’t take for granted that you understand really what someone else may be thinking or going through.”

cancer cell death, as well as RNA-based analogs and cell signaling regulators that can interfere with cancer growth processes; being a pioneer in the development of monoclonal antibodies and recombinant toxins; helping to develop vaccines and harnessing interferons and cytokines to trigger immune responses against cancer cells; and leading research into angiogenesis inhibitors, hormone therapies, transcriptional regulators, and antisense compounds.

THE STRENGTH OF KINDNESS AND HUMILITY

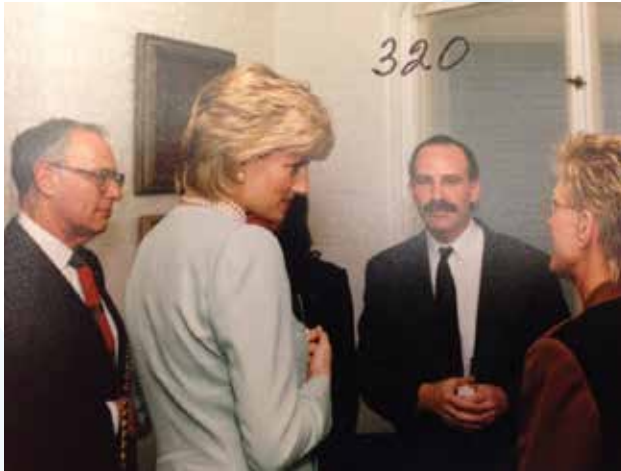
What is the biggest career takeaway for a leading investigator with more than 400 published reports, editorials, books, and book chapters whose research has been funded by the likes of the NCI, American Cancer Society, Leukemia & Lymphoma Society, and Multiple Myeloma Research Foundation?

“Empathy is the most important quality,” said Rosen. “And it’s something that, yes, at times, you have to be conscious of its importance. And don’t take for granted that you understand really what someone else may be thinking or going through.”

Underneath his countless accomplishments, influential leadership, and remarkable research, Rosen just wants every patient to feel like they are the most important person in the world to him.

“I still have about 250 active patients with blood cancers, and every single one has my cell phone. And that’s the way we interact. If they have a problem, an issue, they call me, they text me. I do everything in real time. That connection is very important and meaningful for me.”

Rosen never forgets his former patients, either. His most vividly painful yet profound memory is of a woman in her early 30s with advanced Hodgkin disease who had 3 young children. She was participating in a clinical trial involving



Princess Diana speaks with Rosen and several others during a visit to the Robert H. Lurie Cancer Center at Northwestern University in June 1996.



Rosen joins with City of Hope colleagues Guido Marcucci, MD, left, and Syed Rahmanuddin, MBBS, MBA.

chemotherapy and radiation. To his horror, the woman died because of progressive inflammation of the lungs related to the treatment.

“When she was in the ICU, in those days, they would have the pads we write on...like an Etch A Sketch thing,” he recalled. “I was sitting with her, and I was reflecting. She recognized it was unlikely she was going to survive, and she was thinking about her children. She wrote, ‘Never give up’ to me.”

This experience made him realize that patients are most appreciative of empathy, even more so than medical knowledge.

One of his proudest accomplishments was receiving the Martin Luther King Jr Humanitarian Award from Northwestern Memorial Hospital in 1995 for his significant contributions to the community as well as his embodiment of Martin Luther King Jr’s humanitarianism. A committee of African American staff members nominated Rosen, citing his advocacy for individuals who had not received the respect and opportunities afforded to others.

Receiving the award gave him great satisfaction and “a feeling that his heartfelt sentiment had been recognized,” he said.

He hopes that his legacy will be that he was a caring physician who left “no stone unturned to find the finest care for each of his patients.” Rosen also hopes former colleagues will consider him someone who respected and admired them and who appreciated every opportunity he received.

*“She recognized it was **unlikely** she was going to survive, and she was **thinking** about her children. She wrote, ‘**Never give up**’ to me.”*

He is proud that those he’s mentored throughout his career—physicians he considers friends rather than protégés—have gone on to have successful, meaningful careers and lives.

THE IMPORTANCE OF FAMILY

Rosen’s greatest source of pride is his 4 children, Melissa, Jennifer, Natalie, and Nicholas, who have settled in various parts of the world—Los Angeles, London, Austin, and New York City. He also has a 3-year-old granddaughter named Lili, whom he cherishes his time with.

“To me, they’re all remarkable. They’re all grounded, loving, and accomplished in their own way. None of them [were] interested in medicine,” he laughed.

One of the most important parts of being a father, says Rosen, is that his children know he loves and adores them. He wants them to pursue what gives them satisfaction in life, whether it be achieving career success, traveling the world, or just finding

what it is they are truly passionate about.

When he lost his Uncle Lenny, who was like a second father to him, Rosen was motivated to start writing poetry by his daughter, Melissa, as a method of expressing his grief. His uncle’s death was particularly difficult because Rosen grew up in the apartment above his uncle’s family. Living in such proximity strengthened their bond. Rosen wrote a poem titled “Uncle Lenny” to capture his uncle’s ability to love without inhibition.

His daughter, Melissa, a published poet, told him his writing was good. “It motivated me to write more,” he said. “I started writing when I’d go on plane rides. I would write just what I was thinking at the moment.”

One poem turned into many, and before he knew it, he’d written about 50. Then Melissa surprised him by taking her favorite poems that he’d written and turning them into an anthology titled “Stolen Moments,” named after how he’d find time here and there during his busy day to write poetry. The

collection was well received by those who read it. Rosen's poetry explores philosophical topics, morality-based issues such as war and cancer, and romance. He has written around 200 poems and intends to keep writing.

With a plan in the works to publish the full collection, Rosen explained that it will also be shared in Spanish—a development that occurred after a patient asked to see his poetry. The patient was a woman from Colombia who had been in the hospital for several weeks after receiving chimeric antigen receptor (CAR) T-cell therapy.

After reading his work, she asked to share it with her sister who works as a literature teacher. The patient's sister loved the poems and asked if she

could translate them into Spanish. Before he knew it, a Spanish-translated version of his collection was also in the works.

"I'm very proud of that and didn't anticipate that," said Rosen. "I thought [my poetry] would be something that would be in a drawer for posterity."

LOOKING AHEAD

It's no exaggeration to say that Rosen has been at the forefront of groundbreaking cancer research throughout his career—and he plans to continue that work. He's proud of the efforts he's been part of in recent years at City of Hope, including investigating the spectrum of biologic therapies including CAR T-cell therapy, checkpoint inhibitor therapies, immunoconjugates, bispecific antibodies, and small molecules that target specific pathways. He continues to have multiple NCI grants supporting different areas of his research.

In addition to continuing to achieve specific research goals, Rosen wants to see changes in the oncology field in general. He hopes more emphasis is put on the prevention and early detection of cancer.

"Cancer will be with us forever," he said. "That's not something that's going to go away. It's a matter of how we can essentially diminish its impact on society and maximize the quality of life and life expectancy of patients who are impacted by cancer." ■



Rosen with his colleagues, from left, Lilach Moyal, PhD; Emilia Hodak, MD; Julia Scarisbrick, MBChB, FRCP, MD; and Christiane Querfeld, MD, PhD.