Pioneering Oncology, Forging a Legacy:
In Memory of Academician Yan Sun,
the Visionary Founder of Modern Medical Oncology in China

A personal tribute to the physician, scientist, educator, and visionary who laid the foundation for modern medical oncology in China.

By Sheng Yang, MD

On the morning of January 30, 2026, Beijing's winter was bitterly cold and piercingly chilly. Standing in front of the East Hall of the Babao Mountain Funeral Parlor, I waited to bid farewell to Academician Yan Sun. The square in front of the hall was already packed with grieving colleagues and friends, some of whom I hadn't seen for many years. On both sides of the square were wreaths and memorial articles offered by people from all walks of life. On either side of the hall's entrance hung a couplet that read: "Pioneering the field, you laid an enduring foundation for medical oncology; Exemplifying virtue, you stand as a master of compassion in medicine."

This epitomized Academician Sun's lifelong contributions. As one of the pioneers who established modern medical oncology in China, Academician Yan Sun devoted his entire life to the cause of cancer prevention and treatment. He was among the first to advocate the concept of multidisciplinary treatment, spearheaded the country's early efforts in new drug research and clinical translation, and actively explored integrated approaches combining traditional Chinese and Western medicine. He was honored with awards and accolades, including the First Prize of the National Science and Technology Progress Award, the title of Outstanding Worker in the National Health System, and the Chinese Physician Award.

I learned of the passing of Academician Yan Sun late on the night of January 24. For the past several years, I had been deeply worried about him. After the pandemic, I knew he'd been resting for a long time. I also heard that his health hadn't been great last year, but from colleagues, I'd gathered that he seemed to be doing somewhat better during the National Day holiday, hopeful that he'd soon be able to resume rounds in the medical oncology department and once again join us all. Yet I never could have imagined that such tragic news would come so suddenly.

Scenes from the past surge into my mind like a tide.

Discovering a Pioneer

I first became aware of Academician Yan Sun more than 20 years ago. After working for several years at a hospital in Wuhan, I began to think about pursuing graduate studies. Since I was particularly interested in medical oncology, I decided to apply to the Cancer Hospital of the Chinese Academy of Medical Sciences. At that time, the main reference book I used to prepare for the exam was *Medical Oncology*, edited by Academician Sun. I still clearly remember that it was a thick volume with a deep-blue cover and gold-stamped title. For me, it was here that I first established the foundational framework of knowledge in medical oncology. Another book I relied on during my preparation was *Clinical Handbook of Medical Oncology*, a relatively concise and practical pocket-sized guide that has been hailed as the "bible" for medical oncologists and is one of the most successful books edited by Academician Sun. Back then, it was in its third edition; today, it's already in its seventh edition. These two books also introduced me for the first time to Academician Sun's multidisciplinary treatment philosophy. The two books I used to prepare for the exam are still carefully preserved on my bookshelf today.

The preparation period was both tense and fulfilling. Fortunately, I was admitted to the Cancer Hospital of the Chinese Academy of Medical Sciences, where I pursued a master's degree under the guidance of Professor Xiaohui He. Later, I went on to earn my doctorate under Professor Yuankai Shi. After completing my doctoral studies, I stayed on to work in the Department of Medical Oncology at the Cancer Hospital of the Chinese Academy of Medical Sciences. Professor Shi is a student of Academician Yan Sun; counting it up, I'm now part of the generation that follows directly after Academician Yan Sun's students.

Learning from a Master

During this time, through the weekly Grand Rounds in Medical Oncology, I had the opportunity to interact with Academician Sun himself. The Grand Rounds in Medical Oncology have been a tradition in our hospital's Department of Medical Oncology for decades, held once a week, to discuss challenging or exceptional cases. All physicians in the department, including staff doctors, graduate students, and trainees, participate in these rounds, and everyone, regardless of seniority or title, is encouraged to contribute their thoughts and opinions. Each time, Academician Sun would attend the Grand Rounds. His insights into patient diagnosis and treatment were always far-reaching, incisive, and utterly convincing. When he had ample time, he'd review the historical development of disease treatments, drawing on his own experiences treating specific patients, which proved immensely beneficial for everyone present. Often, he'd also offer career advice and guidance to younger physicians, trainees, and graduate students. I still remember during the Severe Acute Respiratory Syndrome (SARS) outbreak, he personally gifted all the department's physicians, including graduate students and trainees, with traditional Chinese medicines designed to boost immunity. Even though these were small gestures, they clearly demonstrated his deep care and concern for the younger generation.

During this time, I also learned some anecdotes about Academician Sun from my colleagues.

Building Modern Medical Oncology in China

As a pioneer of oncology in China, he led the establishment and development of this discipline from scratch. He graduated from Yenching University in 1951 and from Peking Union Medical College in 1956, earning a Doctor of Medicine degree. In the winter of 1959, Dr. Yan Sun was transferred to Ritan Hospital (now the Cancer Hospital of the Chinese Academy of Medical Sciences), where he was entrusted with the task of joining forces with Dr. Jichang Zhou to establish China's first chemotherapy team for cancer treatment. At that time, China's field of cancer chemotherapy had yet to accumulate any mature experience or possess well-equipped facilities; the entire team consisted of only two doctors, five rudimentary hospital beds, and four anticancer drugs. The patients admitted were all those with advanced-stage cancers who had exhausted all other treatment options, and the team faced constant skepticism from outside circles. Faced with these daunting challenges, Dr. Yan Sun and Dr. Jichang Zhou simultaneously studied the limited available literature and explored new approaches through hands-on practice. They focused their efforts on clinical trials of a domestically developed drug, N-formyl sarcoclorin, seeking breakthroughs in cancer treatment. Back then, the prognosis for patients with testicular seminoma was extremely poor. The two doctors meticulously tracked each patient's condition, rigorously verifying the drug's efficacy and safety. Through relentless exploration, their research achieved a historic breakthrough: among stage I patients, the 10-year survival rate after adjuvant therapy reached 100%; among stage II and III patients as well as those with recurrent disease, the cure rate climbed to 67%, shattering the prevailing belief at the time that solid tumors could not be effectively controlled by medication. In 1962, this groundbreaking achievement drew widespread attention at the 8th International Congress of Oncology in Moscow, earning high praise from the international academic community as "a paradigm of effective drug-based tumor control." That year, Yan Sun was just 33 years old, and this newly developed Chinese anticancer drug made its debut on the global stage. Subsequently, this drug went on to win the 1978 National Science Conference Award and the Ministry of Health's Class-A Scientific Research Achievement Award.

Building on this foundation, Sun's team continued to fill numerous technological gaps in China's oncology field, and their subsequent research achievements again earned them the National Science Conference Award and the Ministry of Health's Class-A Scientific Research Achievement Award.

Advancing Cancer Prevention and Public Health

In the 1960s, confronted with the severe challenge of the high incidence of esophageal cancer in Linzhou (formerly Lin County), Academician Sun, following the instructions of Premier Enlai Zhou, took root in the Taihang Mountains as a core expert of the medical team. Together with many senior members of the medical team, he went deep into fields, factories, mines, and rural households, living, eating, and working side by side with the local people. Under extremely harsh conditions, he led his team to carry out comprehensive research from epidemiological, etiological, and dietary habit perspectives. They ventured deep into the Taihang Mountains to collect traditional Chinese medicinal herbs and successfully developed one of China's earliest anti-tumor drugs, Anti-Cancer Pill No. 2, as well as Zhenqi Fuzheng-type medications. The all-people participating prevention and treatment model for esophageal cancer that he pioneered in Linzhou not only significantly reduced the incidence rate of esophageal cancer locally, but also laid the foundation for cancer prevention and control efforts both in China and around the world.

In the 1970s, risking his life, he ventured deep into mines hundreds of meters below ground in Gejiu, Yunnan, and identified the synergistic carcinogenic factors of arsenic, radon, and smoking. The screening and intervention system he established brought the incidence of lung cancer among miners back to normal levels. He traveled extensively across Dingxi, Gansu, a region famously known as "the most barren land under heaven", and discovered the medicinal value of astragalus, thus creating the celebrated story of "developing a single herb to uplift an entire region." From 1973 to 1975, he led the nationwide retrospective survey on resident deaths and compiled the *Atlas of Malignant Tumors of the People's Republic of China*, providing invaluable baseline data for research into the causes of cancer and the formulation of prevention and control strategies in China, which drew significant international attention.

Since the 1970s, he and Professor Weibo Yin, a senior colleague from our hospital's radiotherapy department, have led a comprehensive treatment approach for small-cell lung cancer. After three revisions to the treatment protocol, this approach has been promoted nationwide through the Beijing-Tianjin Collaborative Group.

In 1979, he was selected to study in the United States and, from 1979 to 1981, conducted research as a visiting professor at the M.D. Anderson Cancer Center in the U.S. He was among the first group of Chinese specialists to study oncology abroad. In the U.S., he was appointed as a visiting professor and simultaneously began collaborating with an international team. Together, they elucidated the molecular mechanisms underlying the anti-tumor effects of traditional Chinese medicines (TCM) that tonify vital energy, thereby earning recognition from the global academic community for the value of TCM in cancer treatment. In the winter of 1981, despite the hospital director's generous offer of a high salary to retain him, he chose to return China. With hundreds of thousands of dollars in research funding he had secured in the United States, he recommended two young Chinese doctors to pursue further studies abroad, continuing the work he had started. Under his guidance, many of his students and family members, after completing their studies overseas, subsequently returned to China to contribute to the country's medical field. Dr. Sun said: "When children finish school, it's only natural for them to go home."

Educating the Next Generation

From the 1980s, he successively took the lead in organizing national training classes on tumor chemotherapy and good clinical practice (GCP) training courses on antitumor drugs, as well as collaborating with the World Health Organization (WHO) to launch a series of training programs on palliative care for cancer pain.

He advocated organizing nationwide chemotherapy training courses, inviting

internationally renowned scholars, as well as domestic pharmacology and clinical experts, to serve as instructors. In 1985, he began holding these training sessions continuously across the country. At the time, China's material conditions were still relatively scarce, and he had to find ways to arrange transportation for the trainees himself.

Shaping Clinical Research and Drug Development

In the 1980s, China's clinical trial field for new anti-tumor drugs lacked standardized protocols and a well-established ethical framework, making it difficult to ensure the scientific rigor and safety of clinical trials. As the director of the National Clinical Research Center for New Drugs (Anti-Tumor Drugs), he proactively took on the responsibility to spearhead the establishment of a specialized review panel for anti-tumor drugs, and drafted the first edition of the *Clinical Research Guidelines for New Anti-Tumor Drugs*, thereby setting clear red lines and benchmarks for clinical trials of new drugs. He consistently maintained that the core principles of clinical trials are twofold: first, ensuring patient safety; second, upholding scientific integrity. When these two principles conflict, patient safety must take absolute priority. This principle has since become the cornerstone of China's subsequent clinical trials for new anti-tumor drugs.

Since 1995, in order to help more new drug developers and clinical physicians master the standards for clinical trials, Academician Sun developed a training program on GCP for clinical trials of anti-tumor drugs, which has come to be known within the academic community and the industry as the "Huangpu Military Academy of Medical Oncology". It has since nurtured a large number of key talents in the fields of new drug development and clinical trials, some of whom have now become internationally renowned experts in medical oncology.

Bringing Chinese Oncology to the Global Stage

As one of the first-generation experts in oncology trained in China, Academician Sun places great emphasis on organizing various academic activities and building platforms for scholarly exchange. In 1997, together with Academician Mengchao Wu and others, he established the Chinese Society of Clinical Oncology (CSCO). Today, CSCO has grown into an internationally renowned society, second only to the American Society of Clinical Oncology (ASCO) in size. Not only has CSCO rapidly become the most influential academic organization in China's oncology field, but it has also emerged as a vital bridge connecting the Chinese and global oncology communities. The CSCO Annual Meeting, which initially drew just a few hundred participants, has now grown into a major scholarly event attended by tens of thousands. Meanwhile, the society actively engages in in-depth exchanges and collaborations with international authorities such as ASCO and the European Society for Medical Oncology (ESMO), helping to align international multicenter clinical research efforts, continuously advancing the development of anti-cancer drugs, improving clinical diagnosis and treatment standards in China, and cultivating a large number of leading talents and mid-career professionals for the industry. Under his mentorship, students such as Yuankai Shi and Binghe Xu have gone on to become internationally acclaimed oncologists, continuing to drive forward the development of oncology in China. Building on this foundation, Academician Sun also played a key role in establishing Chinese Society for Geriatric Oncology, marking significant milestones in the development of clinical oncology in China.

While promoting the standardized development of clinical trials, Sun has consistently remained at the international forefront of clinical trials for new drugs. Since the 1980s, most commonly used anti-tumor drugs, including cyclophosphamide, fluorouracil, doxorubicin, and paclitaxel, were introduced into China through clinical trials conducted by Academician Sun's team.

Academician Sun has participated in numerous international multicenter trials, such as the INTEREST trial comparing gefitinib and docetaxel as second-line treatments for non-small cell lung cancer, and the PO25 trial comparing letrozole and tamoxifen for the treatment of postmenopausal breast cancer.

Sun also enjoys a certain reputation in the international academic community. He has served

as a member of the WHO Tumor Advisory Committee and the Education Committee of the Union for International Cancer Control (UICC); editor-in-chief of the Chinese editions of the U.S. journal *Journal of Clinical Oncology* (JCO) and the *British Medical Journal* (BMJ); editor-in-chief of the Chinese editions of *Annals of Oncology* and *Oncology Times*; and honorary editor-in-chief of the Chinese edition of *The Oncologist*, among other positions.

Transforming Cancer Treatment Through Innovation

I have also witnessed, under the leadership of Academician Sun, the successful launch of several domestically developed targeted new drugs and immunotherapies. In 2003, Academician Sun organized 24 institutions nationwide to conduct a multicenter, randomized, double-blind Phase III clinical trial. The results showed that, when added to chemotherapy, recombinant human endostatin could increase the response rate in patients with advanced non-small cell lung cancer from 19.51% to 35.40%, and extend the median survival time by nearly three months. This drug, a tumor angiogenesis inhibitor independently developed in China, was approved for marketing in October 2006 and has since been widely used in China. . The U.S. National Comprehensive Cancer Network (NCCN) Guidelines (Chinese version, 2006) recommended combining anti-angiogenic agents with five platinum-based doublet regimens as the first-line treatment option for advanced NSCLC. Ultimately, this achievement won the Second Prize of the 2008 National Technology Invention Award, and recombinant human endostatin became China's first targeted anti-cancer drug with independent intellectual property rights. The study on icotinib (Conmana), which directly used the imported drug gefitinib as a control, observed the efficacy and safety in patients with advanced lung cancer who had failed prior chemotherapy. This study broke new ground in China by being the first large-scale clinical trial of anti-cancer drugs to use foreign-imported patented drugs as controls. Icotinib was China's first small-molecule targeted anticancer drug to be launched on the market, and it was also the world's third EGFR-TKI to be approved. It has been hailed as comparable to the "Two Bombs and One Satellite" program in the field of Chinese people's livelihoods. Behind this remarkable achievement lies Academician Sun's unwavering belief and relentless efforts to transform laboratory findings into hope for patients. This breakthrough later earned the First Prize of the 2015 National Science and Technology Progress Award.

A Mentor's Enduring Influence

During my doctoral studies under Professor Yuankai Shi, there was a period when Professor Shi asked me to assist Academician Sun in his special outpatient clinic. At the time, I felt both excited and apprehensive. Fortunately, Academician Sun was kind and patient with his colleagues, his juniors, and his patients alike. I learned a great deal from that outpatient experience, not only clinical knowledge but also a work ethic that involved empathizing deeply with my patients' perspectives and needs.

Later, I was honored to assist Academician Sun in some work within my capabilities. For instance, I participated in the writing or translation of several books, including the new edition of *Clinical Handbook of Medical Oncology*. I also took part in translating the UICC Cancer TNM Staging Manual. During the preparation of *Clinical Handbook of Medical Oncology*, as an editor-in-chief assistant, I was responsible for coordinating and finalizing the manuscript. In the translation of the 8th edition of *Cancer Medicine*, in addition to translating the chapters assigned to me, I also served as an editor-in-chief assistant and contributed to the project. I was involved throughout the entire process, a massive undertaking with over 300 contributors. Icotinib was the first EGFR-TKI to be launched in China, and Academician Sun served as the principal investigator (PI) for the clinical studies that led to its approval. Even after the drug's launch, Academician Sun remained deeply engaged; several years later, he expressed his desire to compile a collection of clinical papers on this drug. The task of selecting manuscripts was enormous, so I took on the responsibility of screening submissions and systematically ranked the importance of various studies and papers. Later, I assisted Academician Sun and Professor Shi in applying for a major cancer prevention and control project organized by the Ministry of Health. This project brought together renowned experts from more than ten hospitals across the country.

The proposal itself was incredibly complex, but Academician Sun provided invaluable guidance. Following his advice, the quality of our proposal improved dramatically, and ultimately, we successfully secured funding for the project. Looking back, although these tasks consumed a great deal of my time, I'm grateful that I didn't add any unnecessary burdens to him. He spent considerable time and energy communicating with us and offering guidance. Several years ago, he and Professor Yuankai Shi encouraged me to apply for the joint talent-development program sponsored by the Society for Translational Oncology (STO) and CSCO. As one of the first participants in this program, I broadened my horizons and greatly enhanced my professional capabilities. I now realize that his encouragement to join the STO fellowship program wasn't merely about sending us abroad to "gain prestige"; rather, he hoped we'd become seeds—taking back cutting-edge international ideas and helping them take root and flourish here at home. This kind of generosity and vision is among the most precious legacies he has left us.

Carrying Academician Sun's Legacy Forward

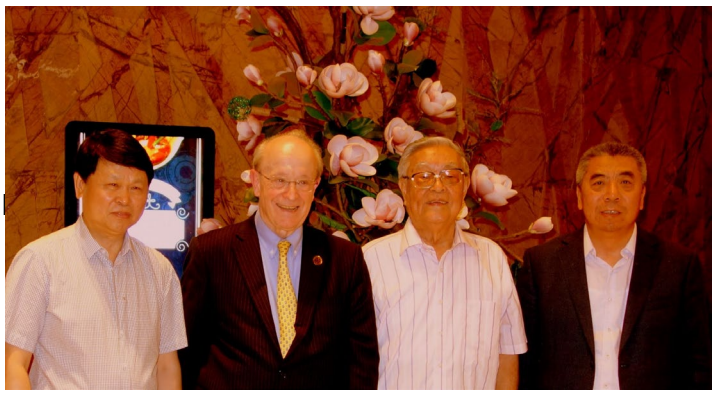
In recent years, clinical research in China has flourished. Our hospital and our sister institutions across the country have frequently drawn attention at international conferences with our clinical studies, and several domestically developed new drugs have even been launched overseas. Looking back, we now fully appreciate just how effective and visionary the work that Academician Sun began decades ago truly was.

Visiting physicians and graduate students all envy our hospital's doctors for having the opportunity to study under Academician Sun, a towering figure in the academic world, for an extended period. During his speeches at academic conferences, doctors from other hospitals often express their admiration, noting that despite his advanced age, Academician Sun remained remarkably sharp-minded, delivered his talks without relying on notes, and offered profound insights with great passion and enthusiasm.

My colleague's reminder interrupted my reverie. I looked around and saw that colleagues from the institute, experts from Beijing and beyond, and friends had formed a long line—many of them had traveled all the way from other cities just to pay their respects. As I moved forward with the crowd, I noticed wreaths and elegies lining both sides of the queue. My eyes welled up, and my vision blurred so badly that I could no longer make out the specific words. The auditorium was solemn and reverent; the faces in the photographs seemed so familiar. We first bowed before his remains, then walked slowly around the room, bidding him our final farewell. His face wore such a peaceful expression. How we wished he hadn't left us—that he could have stayed among us forever! As I shook hands with his family, tears filled my eyes.

As I stepped out of the auditorium, the cold winter breeze invigorated me and gently blew away some of the sorrow weighing on my heart. Soon enough, we would all return to our busy, demanding work. Academician Yan Sun was the founder and pioneer of our oncology department. Looking back on his legendary life, we see that he not only established moral integrity, achieved remarkable accomplishments, and left behind profound insights, but also propelled the advancement of our discipline, reflecting the tremendous progress of an entire era. During his lifetime, he often said: "Our good fortune lies in being able to integrate our personal efforts into the mighty tide of national development." Thinking back to the time when Academician Sun graduated, it was shortly after the founding of New China. Our predecessors had experienced the early days of our nation - a period marked by immense challenges and a painstaking journey of rebuilding from ruins. In those passionately fiery years, they stood tall at the forefront of change, daring to be trailblazers. In recent years, they must have felt deeply gratified to witness the rise of a great nation, the rejuvenation of our motherland, and the peaceful, prosperous lives of our people. Today, Chinese medical oncology that Academician Sun and his predecessors pioneered has evolved into a comprehensive discipline encompassing a wide array of treatments, including chemotherapy, endocrine therapy, targeted therapy, and immunotherapy. Behind him lies a thriving, ever-evolving oncology field in China. His contributions will forever remain a brilliant chapter in the history of modern Chinese medicine.

Before his passing, Academician Sun once said that our shared dream is to advance China's clinical oncology field, and realizing this dream will require the wisdom and hard work of several generations. Though he has left us, his exemplary spirit will live on forever. The torch he lit has now been passed into our hands. This torch not only illuminates our path forward but should also bring warmth to every patient fighting cancer. As his younger generation, we have no choice but to carry forward his legacy, taking him as our role model. At our respective posts, we must shine brightly and passionately, fearlessly overcoming difficulties and pressing ahead vigorously on this new journey in the new era. We must carry forward his academic heritage and spiritual wealth, contributing our generation's strength to the advancement of cancer prevention and treatment. Perhaps this is the best way to honor his memory. I feel deeply that he is still by our side, giving us the courage and strength to move forward without fear - just as he did in the past.



July 1, 2017 (left to right) Prof. Binghe Xu, Dr. Martin J. Murphy, Prof. Yan Sun, Prof. Yuankai Shi

July 1, 2017 (left to right) Prof. Yuankai Shi, Dr. Sheng Yang, Prof. Yan Sun, Dr. Martin J. Murphy