An Early Chemotherapy Innovator, Franco M. Muggia, MD, Now Focuses on Advancing Therapies for Ovarian Cancer

By Jo Cavallo

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Franco M. Muggia, MD

Looking over an illustrious career in medical oncology that spans 5 decades, Franco M. Muggia, MD, told The ASCO Post that he is excited about the future and hopes to continue making contributions to the field of oncology in years to come. At the forefront of the early clinical development of chemotherapies in the treatment of leukemia and lymphoma and a variety of solid tumors, including breast, lung, ovarian, and gastrointestinal cancers, Dr. Muggia credits a talk given by David Karnofsky, MD, in his first year of medical school with steering him toward a career in oncology. However, his interest in medicine took root much earlier.

The Family Tradition

Dr. Muggia was born in Turin, Italy. Three years later, his family fled to Quito, Ecuador, to escape the rising power of Fascist dictator Benito Mussolini. Although the move altered the course of the career of Dr. Muggia’s father Aldo, a prominent pediatrician—and later codirector of the Ecuadorian pharmaceutical
company LIFE (Laboratorios Industriales Farmacéuticos Ecuatorianos)—Dr. Muggia was influenced by his father’s work as a physician/scientist.

Interested in math and science, Dr. Muggia excelled in his studies at the American School of Quito and immigrated to the United States in 1952 to complete his senior year in high school at the Wooster School in Danbury, Connecticut, a path that had been forged earlier by his older brother Albert and one that would be continued through medical school.

“I followed in the footsteps of my brother who had come to Wooster 2 years earlier. He later went to Yale Medical School, while I obtained my undergraduate degree in biophysics at Yale College and then headed to New York and Cornell University Medical College,” said Dr. Muggia.

After receiving his medical degree in 1961, Dr. Muggia interned at Bellevue Hospital in New York and completed his residency at Hartford Hospital in Connecticut, followed by a fellowship in hematology and oncology at Columbia University College of Physicians in New York. His colleagues (Gianni Bonadonna, MD, and Joseph Fraumeni, MD) and mentors (John Ultmann, MD, and Alfred Gellhorn, MD) during training are a Who's Who of renowned innovators in cancer research.

Learning From the Oncology Masters

Although Dr. Muggia’s tutelage under Dr. Ultmann focused on the hematologic malignancies, in his first academic position at the Albert Einstein School of Medicine he turned his attention to the treatment of solid tumor cancers and was a Co-Chair with Charles Moertel, MD, on the Eastern Cooperative Oncology Group's Gastrointestinal Committee.

Dr. Muggia became a U.S. citizen in 1964, just as the country’s involvement in Vietnam was starting to escalate. After 2 years at Albert Einstein College of Medicine, he volunteered for the Public Health Service, landing a position at the Medicine Branch of the National Cancer Institute (NCI) in 1969.

“The unit was headed by Paul Carbone, MD, and I spent a few months in the NCI’s solid tumor service and in the laboratory of Vincent DeVita, MD, and George Canellos, MD. With Heine Hansen, MD, I was integrated into a new unit that was developing drug regimens for lung cancer,” said Dr. Muggia. That experience gave him a taste for laboratory and clinical research.

“My main thrust during that time was to be part of NCI drug research in the pharmacology of new agents such as camptothecin, a forerunner of the topoisomerase I inhibitors; teniposide (Vumon); nitrosoureas, a group of alkylating agents; bleomycin; and eventually paclitaxel and cisplatin, which have since become mainstream chemotherapies in testicular, lung, bladder, breast, and lung cancers,” said Dr. Muggia.

In 1975, after becoming Associate Director of the Cancer Therapy Evaluation Program (CTEP) at the NCI, he was joined by Daniel Von Hoff, MD, Marcel Rozencweig, MD, and William McGuire, MD, among other burgeoning oncologists, in getting these new therapies tested in academic institutions and into the hands of patients through collaborative agreements with industry as a path to approval by the U.S. Food and Drug Administration (FDA).
While at the NCI, Dr. Muggia was exposed not only to the curative potential of cisplatin in germ cell tumors, but also to the concept of regional intraperitoneal therapy in the treatment of ovarian cancer and the importance of drug formulation. “My time at CTEP was instrumental in terms of my professional development and in applying what I had learned from our oncology masters,” said Dr. Muggia.

In 1979, Dr. Muggia left the NCI to become Professor of Medicine and Director of the Division of Medical Oncology at New York University (NYU) School of Medicine.

“The first thing I did there was to look at new drugs that seemed promising in the treatment of gynecologic and breast cancers, such as doxorubicin and cisplatin, and with recently recruited medical oncology colleagues, saw an opportunity to improve the way we deliver these drugs and obtain better outcomes for our patients,” said Dr. Muggia.

He left NYU in 1986 and held similar appointments at the University of Southern California (USC) Norris Comprehensive Cancer Center and Los Angeles County–USC Hospital and joined gynecologic oncology colleagues to continue work on intrapetioneal platinum–based delivery, and the clinical development of liposomal doxorubicin for recurrent ovarian cancer. In 1996, he returned to NYU, where he served as Director of the NCI–designated Cancer Center for 1 year, and also led the Division of Medical Oncology and its expanded Fellowship Program until 2009.

Pursuing a Multifaceted Career

Dr. Muggia’s main focus today is patient care and teaching, while still actively involved with NYU Medical and Gynecologic Oncology colleagues in the development of phase I studies of new agents and treatment regimens. He is Chairman of the Gynecologic Oncology Group’s Medical Oncology Committee and is Editor–in–Chief of the NCI’s Physician Data Query (PDQ) Adult Treatment Board. Dr. Muggia is also Chairman and Medical Director of The Chemotherapy Foundation, a position he has held since the passing of the Foundation’s founder, Ezra Greenspan, MD, in 2004.

Dr. Muggia served on ASCO’s Cancer Education Committee from 2001 to 2004 and was an editorial board member of the Journal of Clinical Oncology (JCO) as well as the first editor of JCO’s Spanish edition.

Looking Forward to Future Achievements

Dr. Muggia credits the support he received from his wife Anna and their four daughters with helping him advance his early clinical and research career, leading to the contributions he has made in the development of effective chemotherapy agents that have improved the lives of thousands of patients. He also takes satisfaction in knowing that his mentorship of oncology fellows will impact the lives of thousands more.

“One of the great satisfactions of being an elder statesmen is guiding young faculty in their careers and seeing what they become,” said Dr. Muggia.

He also takes pride in influencing the medical careers of those closer to home. His daughter Victoria is Assistant Professor in the Department of Medicine in Infectious Diseases at Albert Einstein College of Medicine, and his oldest grandchild is also planning a career in medicine.

“I have had a wonderful life, and I count my blessings,” said Dr. Muggia. “Further building on knowledge and experience, I hope to be involved in a number of substantial contributions to oncology that are yet to come. Most importantly, I consistently learn...
that whatever I may have accomplished has been through collaboration and appreciation of the qualities of my coworkers, too numerous to mention here.”