Dr. Joseph R. Bertino: A Reflection

With great satisfaction we note that Joseph R. Bertino, professor of medicine at the University of Medicine and Dentistry of New Jersey (Fig. 1), was awarded the 2007 Pinedo Prize at the VU Cancer Center in Amsterdam. As a prior recipient of this award, I am personally honored to be joined by Dr. Bertino in the circle of cancer physicians to receive this acknowledgment. Dr. Bertino certainly exemplifies the qualities of the compassionate physician and outstanding investigator so personified by Dr. H. M. “Bob” Pinedo, and to which this award is dedicated. I have had the great pleasure of working with Bob Pinedo during the formative days of his research career at the National Cancer Institute (NCI), and even earlier, I worked as a fellow in Joe Bertino’s laboratory at Yale. Both experiences led to life-long friendships, scientific collaborations, and my great appreciation for their contributions to oncology.

Dr. Bertino began his remarkable career in research in Seattle in the late 1950s, where he worked with one of the great biochemists of that generation, Frank Huennikens. He discovered that methotrexate exposure led to a rapid increase in the intracellular level of its target, probably an effect on dihydrofolate reductase (DHFR) transcription, and later, with Bob Schimke at Stanford, he reported the quite remarkable observation of gene amplification of DHFR, opening a whole new era in drug resistance research and unveiling an unexpected aspect of the plasticity of the tumor genome. Many other important observations followed, both in the laboratory and in the clinic, including the evolution of high-dose methotrexate therapy and other aspects of methotrexate pharmacology. Largely as a result of his work, this drug has become the stalking horse for understanding how cancer drugs work and why they fail.

Dr. Bertino has influenced the scientific path of many cancer researchers and academic centers. His career has taken him to New Haven, where he joined an all-star team of cancer pharmacologists who had been recruited by Arnold Welch, and remained for 25 years, to Memorial Sloan-Kettering Cancer Center, where he spent 16 years building bridges between the clinical services and the basic laboratories. At Memorial, he contributed important papers on drug resistance in leukemia and soft tissue sarcomas. And during the past 6 years he has established a translational research laboratory at the Robert Wood Johnson School of Medicine in New Brunswick, becoming the acting director of their Cancer Center with the departure of his close friend and former student, Bill Hait. He has been continuously funded by the NCI for more than four decades.

While Dr. Bertino’s scientific accomplishments would in themselves justify the awarding of the many prizes he has won, his career has been punctuated by the contributions of a legion of collaborators, fellows, and students who have been guided and influenced by this great man. I count myself among those, a group that includes Bill Hait, Bill Hryniuk, Bob Capizzi, Lisa De Angelis, Bart Kamen, Kathy Scotto, and many others. Many patients have benefited from his wisdom as a physician.
and have supported his work and the work of his fellow cancer scientists because of their admiration for him.

I could not end this note of admiration for Dr. Bertino without recognizing his accomplishments as an athlete! A talented collegiate basketball player in the era of 6’2” centers, Joe turned his attention to softball, tennis, and golf. His weekly tennis matches with Paul Marks at Memorial were legendary for their intensity and skill, and continued for many years, although no one but they know the final score. For the past 20 years, Joe and I have shared memorable moments on the magnificent Yale golf course, including close brushes with victory in the Annual Beinecke Invitational tournament. Joe remains the very best chipper and putter in the amateur ranks.

Fortunately for us all, his scientific thinking and his clinical skills are undiminished. He is truly and richly deserving of the Pinedo Prize.

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