## **EDITORIAL**

## **Tribute to Marija Auersperg**

WALLEY J. TEMPLE, MD, FRCSC, FACS\*

Department of Surgery and Oncology, Tom Baker Cancer Centre, Calgary, Alberta, Canada

It is my privilege to dedicate this issue to Professor Marija Auersperg. She is a remarkable surgical oncologist and an amazing person whose determination has overcome incredible challenges. She has been a major contributor to the development of surgical oncology in her own country and throughout Europe.

She was born in Ljubljana, Slovenia in 1937.

In this country she is the last remaining member of the noble family which had for more than 800 years an important influence on political, cultural, military, and social life in Central Europe. The childhood of Professor Auersperg was very turbulent. After the Second World War and takeover of the country by Tito and communist regime her father was arrested because of his noble ancestry, and killed.

Despite the limited resources that her mother could provide, which also required her to work throughout her childhood, she ultimately managed to graduate in medicine in 1960. She completed surgery training in 1966, having taken 2 years during this period to study pathology. She added to this by training a further 18 months in Surgical Oncology in distinguished institutes in France, Sweden, Finland, Germany, and the USA. She achieved the rank of Professor in 1985 and became the Chief of the Department of Surgical Oncology at a Comprehensive Cancer Center, The Institute of Oncology Ljubljana in 1994. In 1997 she retired from clinical work in surgical oncology but remained active in research and as a mentor of younger colleagues. Her career in surgical oncology spanned 31 years and changed the landscape of surgery within the Institute of Oncology in Slovenia, which started with only 2 surgeons and increased to 15, all with subspecialty training, most of whom she has mentored. This allowed the opportunity to develop a number of multi-disciplinary clinics at the Institute of Oncology for the less common and challenging tumors.

Marija has been an active contributor of the World Federation of Surgical Oncology Societies. She is particularly proud of her involvement with IPOKRATES, an international organization for knowledge transfer in research and teaching and organized many courses promoting academic development of her colleagues. Contacts with distinguished centers in Europe and USA for technology transfer, exchange of experts and joint research studies were also established. She has served as President of the Slovenia Society of Surgical Oncology for 11 years.

Her research was very productive reflected by 77 peer reviewed papers and in addition served on 3 Editorial Boards. Her contributions reflected her background in pathology with an interest in local delivery of drugs to advanced tumors and measuring their individual cytological response. Already in 1967 Marija with a team of coworkers introduced extracorporeal limb perfusions at the Institute of Oncology. As at that time except for melanomas no drugs effective in extracorporeal perfusions were available, the research of Dr Auersperg and her closest coworkers Professor Marija Us-Krasovec, Head of the Department for Cytopathology and Professor Marijan Erjavec, Head of the Department of Nuclear Medicine was focused to the development of effective

continuous arterial chemotherapy. The target volume and blood flow dynamics were studied with isotope labeled microspheres whereas individual tumor response was monitored by cytomorphological studies, measurements of DNA and various biological markers in tumor samples obtained by fine needle aspiration biopsies. The results indicated that the continuity of the chemotherapy and individual monitoring of the tumor response might be more important than the gradient in the drug concentration achieved with intraarterial compared to the intravenous application of chemotherapy. Individual planning and timing of drugs in combined chemotherapeutic schedules was particularly useful for the development of effective protocols for rare tumors or tumors which failed standard treatment. Her observations in respect to vascularity and synchronization of tumor cell cycle with use of low-dose intravenous vinblastine dramatically improved response rates. Remarkably her protocol resulted in 70% response rates in thyroid cancer as well as in other tumors that were considered unresponsive to drugs. This included chordomas, verrucous carcinomas, and anaplastic carcinomas of the thyroid. Her work and coworkers from the Department of Experimental Oncology demonstrated that this could be attributed to increasing tumor cell permeability, damage to endothelium and to the blood supply. This work was a forerunner of the use of biologics currently used for blocking angiogenesis as well as the discovery of the principle of continuous chemotherapy now used in a number of neoadjuvant radiotherapy settings such as rectal cancer. Her accomplishments are recognized by a number of prestigious awards, including the Boris Kidric Foundation and also the Johann Georg Zimmermann Award.

Her clinical work focused mainly on advanced head and neck tumors and thyroid cancers. She developed creative, multidisciplinary protocols using chemotherapy, radiotherapy, and surgery involving plastic surgery for tumors previously considered unresectable years before it became a standard of care around the world. All were accomplished with the most meager of infrastructure support for basic and clinical research which even included restricted access to current medical literature.

What is even more impressive is her indomitable character, her courage in the face of daunting challenges, her selfless devotion to her country, and specifically her dedication to the cancer patient.

Her surgical skills are also impressive. One story in particular, captures her courage and her dedication to her patients. Faced with a

\*Correspondence to: Walley Temple, MD, FRCSC, FACS, 1331 29th St NW, Calgary, Alberta, Canada T2N 4N2. Fax: 403-283-3744. E-mail: walleyte@cancerboard.ab.ca

Received 22 April 2009; Accepted 22 April 2009

DOI 10.1002/jso.21314

Published online in Wiley InterScience (www.interscience.wiley.com).

## 460 Temple

young Albanian patient who needed treatment for a massive thyroid cancer considered inoperable in several other centers, with the price of failure her life as she was threatened by an extremely protective father. The tumor was resected, the parathyroid function and laryngeal nerves preserved and the boy's life was saved. Marija is also gifted as a teacher, mentoring her students who are now the current leaders in surgical oncology in Slovenia. She is a very humble person and multi-

talented, communicating in seven languages. She cares that her students not only become excellent surgeons but also that they have interests outside of medicine.

This remarkable surgical oncologist is not only noble by birth but noble in her deeds, accomplishment, and leadership. She is another jewel in the crown of the many talented surgical oncologists worldwide.