Cancer and Aging. From Bench to Clinics
Cancer and Aging
From Bench to Clinics

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As I write this preface, I am just back from an exciting 12th Annual Conference of the International Society of Geriatric Oncology (SIOG). The conference spanned everything from basic science to public health and caregiving. These are great times for geriatric oncology as our field expands in all directions. This issue of the Interdisciplinary Topics in Gerontology series will, I hope, convey to you this excitement.

We start at the bench, with a chapter by Sharp et al., from San Antonio, Tex., USA, on mTOR inhibition. This is an important pathway in both aging and cancer, and the recent availability of mTOR inhibitors for clinical use in oncology opens a wide array of possibilities for interactive cancer and aging studies. We then explore how the tumor microenvironment can be altered by senescent cells with Velarde et al., from Berkeley, Calif., a group that has done a lot of work on the topic. We continue with two thorough chapters on immune senescence and how it affects cancer vaccine response (Gravekamp), and cancer development (Fulop et al.).

We then transition to a case example in translational research, namely the impact of the metabolic syndrome, which affects 40% of older Americans, on cancer development and prognosis. This illustrates an important development in our understanding of the interactions between comorbidity and cancer. Comorbidity used to be seen as mostly a competing cause of death, or something reducing tolerance to cancer treatment. Increasingly, however, we realize that comorbidities and their treatment can influence the behavior of the cancer itself, worsening or improving its prognosis. Dr. Balducci shares with us his expertise on frailty in the next chapter, another topic that links biology and clinic, and a hotly debated one in geriatrics. AML has a poor prognosis in the elderly, and numerous translational research studies target patients above the age of 60. Are we seeing progress? Dr. Vey tackles this question.

A key feature of geriatric oncology, like geriatrics in general, is its multidisciplinarity. A comprehensive geriatric assessment and intervention is at the core of geriatric medicine and Dr. Mohile reviews the state of the art in adapting this approach to the older cancer patient. Several pharmacokinetic tests are offered to improve chemotherapy dosing in cancer patients. How helpful are they in the elderly? Dr. Lichtman weighs in. Van Leuwen et al. appraise the role of the new surgery techniques in improving the care of older cancer patients. Bringing multidisciplinary teams together raises
multiple practical organizational questions. Therefore our three next chapters explore how geriatricians and oncologists can interact (Holmes and Albrand), how geriatric oncology nursing differs from oncology nursing as usual (Overcash), and how exercise programs can be implemented for older cancer patients (Klepin et al.).

Ultimately, if geriatric oncology is to benefit the entire population, it has to be organized on a large scale. Bréchot et al. share with us how the French National Cancer Institute has been instrumental and deliberate in building up the geriatric oncology capacity in France. Inspirational lessons for all of us.

I hope you will enjoy the reading, and even more, find a multitude of ideas to feed your research and practice, and foster your excitement for geriatric oncology. Who knows, you might contribute your experience to the next SIOG meeting... Good reading!

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