



Editorial

Bone Oncology—An emerging multi-disciplinary specialty



The skeleton and bone marrow microenvironment within bone acts as a critical organ for the development and spread of metastatic cancer. Bone metastases are common and have major impact on the physical function and quality of life of cancer patients. Over the last decade, as our understanding of the processes involved in metastasis has increased, it has become clear that bone marrow derived stem cells are intimately involved in the development of metastases both within and outside bone, and interactions between cancer and bone cells underpin the development of skeletal metastases. Additionally, as survival in many cancers improves, the long-term effects of treatment on bone health are of increasing importance.

Coupled with the increasing recognition of the biological and clinical importance of the skeleton in the outcomes for cancer patients, rapid developments in bone targeted treatments, skeletal imaging and bone biomarkers have occurred. The therapeutic advances, notably bisphosphonates and denosumab, have had a profoundly positive effect on the care of patients with advanced malignancy and may have an important role in modifying the clinical course of certain cancers, especially those arising in the breast and prostate as well as for patients with multiple myeloma. Consequently, bone oncology has emerged as a new discipline and, in recognition of this, a new journal that brings together all aspects of the biology and clinical management of bone disease in cancer patients has been created.

The *Journal of Bone Oncology* is a peer-reviewed international journal aimed at presenting basic, translational and clinical high-quality research related to bone and cancer. As the first journal dedicated to cancer induced bone diseases, we believe it fills an important gap in the available literature that adequately addresses this important research area and are very excited to have the enthusiastic support of a world class international editorial board.

The areas covered by the journal include:

- Pathophysiology, epidemiology, clinical features, prevention and treatment of bone metastases.
- Preclinical models of metastasis.
- The bone microenvironment in cancer and the role of stem cell, bone cell and cancer cell interactions in the development and spread of malignancy.

- The pharmacology, therapeutic targets, drug development, clinical trials, side-effects, and health economics of bone targeted therapy.
- Causes, prevention and management of cancer treatment induced bone loss.
- Preclinical and clinical imaging of the skeleton and developments in skeletal interventional radiology.
- Discovery, validation and clinical and translational applications of bone biomarkers.
- Radiotherapy and radio-isotopes for the prevention and treatment of bone metastases.
- Skeletal complications of malignancy including fracture, hypercalcaemia, and spinal cord compression.
- Mechanisms and management of bone pain.
- Orthopaedic cancer surgery.
- Primary malignant bone tumours.
- Clinical guidelines of relevance to bone health in oncology.
- Multidisciplinary patient care.

We are delighted, in partnership with Elsevier, to bring you this first issue of the *Journal of Bone Oncology*. Initially, 4 issues a year will be published and be made available via Science Direct. Our vision is to provide a journal to scientists and clinicians that bridges oncology and bone biology and is of broad appeal to all involved in cancer research and treatment. We do hope you will want to help make this journal a success by submitting relevant original research articles, review articles, editorials, case reports and opinion pieces.

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