

## **Preface for the Special Issue**

**Yossi Cohen**

Plasma cells are terminally differentiated B cells which normally secrete immunoglobulins. The group of plasma cell disorders consists of several sub-categories including monoclonal gammopathy of unknown significance (MGUS), primary amyloidosis, the polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, and skin changes (POEMS) syndrome as well as multiple myeloma (MM). The latter category is subdivided into symptomatic versus asymptomatic myeloma and is also stratified by clinical prognostic scores such as the old Durie-Salmon classification and the newer international scoring system (ISS), as well as according to reproducible chromosomal abnormalities and more recently also by high versus low-risk gene expression profile (GEP). The clinical manifestations of transformed plasma cells are mainly derived from the local effects of the tumor cells

proper and from the impact of the circulating monoclonal immunoglobulins. The last decades brought with them an exciting breakthrough in drug development for MM with improved outcome of patients but they also left many issues unresolved, including the preferred method for the detection of minimal residual disease (MRD) (e.g., based on the immunoglobulin gene rearrangement or immunophenotype), the role of maintenance therapy and many additional open questions. The following Special Issue is touching some aspects in the pathophysiology, diagnosis and treatment of some of the plasma cell disorders and is also dealing with the obscure mechanism of action of the IMiDs, the latter started the era of novel agents against myeloma with the introduction of thalidomide.