

Tumor infiltrating lymphocytes: indicators of tumor-related immune responses

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During the past decade, remarkable progress has been made in understanding the interactions between the immune system and cancer. Importantly, there is growing evidence for the concept of cancer immunosurveillance and immunoediting based on (i) protection against development of spontaneous and chemically-induced tumors in animal systems and (ii) identification of targets for immune recognition of human cancer. The concept of cancer immunoediting holds that the immune system not only protects the host against the development of primary cancers but also sculpts tumor immunogenicity. The demonstration of this concept in animal models has been accomplished by the use of appropriate knockout mice, strategies that are not feasible for human experimentation. Therefore, it is necessary to rely on correlative human studies, such as tumor infiltration by lymphocytes as a reflection of a tumor-related immune response. This subject is of considerable importance, and yet continues to generate controversy in the field of human tumor immunology. More recently, there has been an improved ability to demonstrate distinct subsets of tumor infiltrating lymphocytes (TILs) in different tumor compartments, and a clearer picture is emerging. Data from many of these studies indicate that the presence of TILs may be associated with improved clinical outcome in several human cancers.

The editors of *Cancer Immunity* believe that it is timely to undertake in-depth reviews of TILs in the major types of human cancers. These reviews will be concise, and yet be as definitive as possible at this stage of our understanding. In this volume, Dr. Haruo Ohtani has provided a detailed review of the significance of TILs in colorectal carcinoma. It our hope that this, and future reviews on human TILs, will generate interest and research efforts aimed at filling the gaps in our current knowledge.

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