

Session 6: Immunotherapy of cancer

OCPS 24: Immunotherapy of cancer

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The role of the microenvironment during the progression of carcinogenesis is now realized to be of critical importance both for enhanced understanding of fundamental cancer biology, as well as exploiting this source of relatively new knowledge for improved immune intervention. Hypoxia is a common feature of solid tumors and one of the hallmarks of tumor microenvironment, known to favor tumor survival and progression. The identification of tumor-specific epitopes as targets for antitumor cytotoxic effector cells

has made possible their use in vaccination trials. However, positive clinical results have been scarce most likely because of the weak immunogenicity of these peptides, the low frequency of tumor-specific T lymphocyte precursors and the resistance of tumor cells to cytotoxic effector cells. The influence of tumor microenvironment in particular hypoxic stress in shaping the quality of Cytotoxic T Lymphocytes (CTL) response and the susceptibility of tumor target cells to CTL-induced cell death will be discussed.