Tumor-associated Tregs obstruct anti-tumor immunity by promoting T cell dysfunction and restricting clonal diversity in tumor-infiltrating CD8+ T cells

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- The emergence and sustenance of T cell dysfunction marked by upregulation of inhibitory receptors on tumor-infiltrating CD8+ T cells is mediated by high proportion of intra-tumoral Tregs through limitation of costimulatory signal availability to these effector cells.

- This dysfunctional state is further compounded by Treg-mediated deprivation of IL-2 which facilitates reduced survival and limits clonal diversity within the effector CD8+ T cells, effects that could be reversed by Treg-depleting agents and IL-2 supplementation to promote enhanced antitumor immunity.