A license to leave, a license to live and a license to kill: CD4 T cells help CD8 T cells fight cancer with a little help from Notch

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Abstract
Cancer confuses the immune system. The presence of cancer antigens can be detected by T cells, but the lack of microbe-derived signals makes the case for an aggressive response unclear. CD8 T cells can be made to attack cancer cells, but require instructions from CD4 T cells that license the initiation and continuation of responses as well as their level of aggression. We will discuss how help from CD4 T cells controls multiple steps in the life of a tumor-reactive CD8 T cell and how understanding of the molecular mechanisms involved can be exploited for therapeutic purpose.