

Properties of Memory T Cells

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During immune responses T cells are activated. They then go through a period in which many of them die, but some survive and become memory cells. There is evidence that different factors support T cell activation, the period during which T cells are deciding to die or convert to memory cells, and the memory cells themselves. Dr. Marrack will discuss these differences and also the factors which cause activated T cells to die. T cell death involves members of the Bcl-2 family since Bcl-2 levels are reduced in activated T cells and the proapoptotic Bcl-2 relative, Bim, is required for the deaths of activated cells under certain circumstances. The deaths of activated T cells are prevented by inflammatory stimuli, however, these do not act via Bcl-2 related proteins but rather by affecting transcription by NF- κ B proteins. Lastly memory T cells are supported by a different set of factors and memory CD4⁺ cells may be supported by different factors than memory CD8⁺ cells.

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