Which donor cells facilitate the induction of specific immunological unresponsiveness to alloantigens in vivo?


Alloantigen administration before transplantation, either alone or in combination with therapeutic agents that modulate the functional activity of the responding leukocytes, can be a powerful way of inducing specific unresponsiveness to alloantigens in vivo. In theory, any cell expressing one or more donor alloantigens has the ability to modulate the subsequent immune response to an allograft expressing the same molecules. However, not all sources of cells are equal in their ability to induce specific unresponsiveness. Understanding the molecular mechanisms that influence the way the outcome of the immune response to alloantigen develops, either activation or unresponsiveness to the triggering antigen, will enable the immune system to be manipulated more effectively for therapeutic purposes.