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Early thymic selection and conditioning begin the shaping of the T cell repertoire.

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Thymocyte differentiation is the route by which a diverse, functionally pleiotropic peripheral T cell compartment can be established. We have sought to identify molecular interactions that shape thymocyte development, and will discuss novel immunoglobulin superfamily genes, known as *Skint* genes, that are expressed by thymic epithelium and that select the repertoire of "unconventional T cells" that contribute to "transitional immunity". By contrast to "stress-activated" immune sentinels, these genes appear to denote normality. We shall also consider molecular interactions of early thymocytes with other thymocyres; how this promotes heterogeneity among thymocytes; and how this may predispose cells to certain functional competences. The integration of these events begins the shaping of the T cell repertoire.

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