Lymphotoxin (LT) was originally described as a factor (cytokine) produced by thymus derived lymphocytes (T cells) that could kill tumor cells. It is a member of the TNF family of cytokines and closely related in structure and function to TNF and as such it plays an important role in autoimmunity. However, it is uniquely crucial for lymphoid organ development. Its roles in lymphatic vessels and high endothelial venules in a novel type of lymphoid accumulation, called tertiary lymphoid organs, will be described.