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Regulation of the IL-2 and IL-2R Genes Chapter 12 Digital Signaling via the T Cell Antigen Receptor Complex; Chapter 13 Negative Feedback Regulation of T Cell Antigen Receptor Complex Signaling - Attenuation of IL-2 Gene Expression; Chapter 14 The Paradox of the IL-2 (-/-) Mouse; Chapter 15 The Scurfy Mouse; Chapter 16 Lymphopenia, Autoimmunity and the Regulatory T Cell (Treg); Chapter 17 Treg-mediated "Active Suppression" of T Cell Proliferation; Chapter 18 FOXP3, A Better ID-Tag for Tregs?; Chapter 19 Mice Versus Men Chapter 20 Active Versus Passive Suppression and IL-2 Metabolism Chapter 21 FOXP3 Restricts But Does Not Suppress IL-2 Production; Chapter 22 Both the TCR and IL-2 Regulate FOXP3 Expression; Chapter 23 The Effects of FOXP3 Expression; Chapter 24 The Role of IL-2 in the Generation of Immune Responses In Vivo; Chapter 25 The Role of the IL-2r Chains in IL-2 Signaling, Consumption and Suppression of T Cell Proliferation; Chapter 26 T Cell Tissue-specific Autoimmunity; Chapter 27 Type 1 Diabetes Mellitus (T1DM), a Prototypic Genetic Autoimmune Disease with a Tie to IL-2 Chapter 28 The Pathogenesis of Leukemia - Loss of Normal Quantal Growth Control Epilogue; Index

Sommario/riassunto

This book explains how the immune system functions, namely, how individual cells of the immune system make the decision to respond or not to respond to foreign microbes and molecules, and how the critical molecules function to trigger the cellular reactions in an all-or-none (quantal) manner. To date, there has not been a complete description of the immune system and its cells and molecules, primarily because most of the information has accumulated only in the last 40 years and our understanding has been expanding rapidly only in the last 20 years. It is now clear that the cells have evolved a
