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Nota di contenuto	Purinergic signalling: an historical overview -- Regulation of extracellular adenosine -- Adenosine receptors: structure, distribution and signal transduction -- Binding thermodynamic characteristics of adenosine receptor ligands -- A1 adenosine receptor agonists, antagonists and allosteric modulators -- A2A adenosine receptor: structure, function and medicinal chemistry -- Medicinal chemistry of A2B adenosine receptors -- A3 adenosine receptor: medicinal chemistry of orthosteric and allosteric ligands and structural probing -- Adenosine Receptors and Neuroinflammation -- Adenosine receptors as paradigm to identify dimer/oligomers of G-protein-coupled receptors and as targets in Parkinson's disease -- Adenosine receptors in Alzheimer's disease -- What is the role of adenosine receptors in Huntington Disease? -- Adenosine receptors: a novel target for homeostatic control of cognition -- Role of Adenosine Receptors in Epileptic Seizures -- Adenosine signalling in brain Ischemia -- Adenosine and traumatic brain injury -- Adenosine and its receptors in pain -- Adenosine signalling in the injured heart -- Adenosine receptors in the lungs -- Adenosine and renal function in health and disease -- Adenosine regulation of the immune system -- Adenosine receptors regulate skeletal biology -- Adenosine receptors in gestational diabetes mellitus and obesity -- Adenosine receptors: current research and their involvement in cancer -- Adenosine receptors as a biological pathway for pulsed electromagnetic fields.

## Sommario/riassunto

This book traces the history of adenosine receptor research from molecular biology to medicinal chemistry to behavior, including their implications in disease and potential strategies as therapeutic targets. It provides the reader with a comprehensive overview of the adenosine receptors that includes information on all subtypes - A1, A2A, A2B and A3. Aspects addressed include the most up to date information on their functional distribution in the nervous and peripheral systems, behavioral roles in inflammation, cancer, pain and neurological diseases such as Huntington's disease, Epilepsy, Parkinson's disease and Alzheimer's disease.

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