

Contents

Introduction to Adenosine Receptors as Therapeutic Targets	1
Kenneth A. Jacobson	
A₁ Adenosine Receptor Antagonists, Agonists, and Allosteric Enhancers	25
William F. Kiesman, Elfatih Elzein, and Jeff Zablocki	
Recent Developments in Adenosine A_{2A} Receptor Ligands	59
Gloria Cristalli, Christa E. Müller, and Rosaria Volpini	
Recent Developments in A_{2B} Adenosine Receptor Ligands	99
Rao V. Kalla, Jeff Zablocki, Mojgan Aghazadeh Tabrizi, and Pier Giovanni Baraldi	
Medicinal Chemistry of the A₃ Adenosine Receptor: Agonists, Antagonists, and Receptor Engineering	123
Kenneth A. Jacobson, Athena M. Klutz, Dilip K. Tosh, Andrei A. Ivanov, Delia Preti, and Pier Giovanni Baraldi	
Adenosine Receptors and the Heart: Role in Regulation of Coronary Blood Flow and Cardiac Electrophysiology	161
S. Jamal Mustafa, R. Ray Morrison, Bunyen Teng, and Amir Pelleg	
Adenosine Receptors and Reperfusion Injury of the Heart	189
John P. Headrick and Robert D. Lasley	
Adenosine Receptors and Inflammation	215
Michael R. Blackburn, Constance O. Vance, Eva Morschl, and Constance N. Wilson	
A₁ Adenosine Receptor: Role in Diabetes and Obesity	271
Arvinder K. Dhalla, Jeffrey W. Chisholm, Gerald M. Reaven, and Luiz Belardinelli	

A₃ Adenosine Receptor: Pharmacology and Role in Disease	297
P.A. Borea, S. Gessi, S. Bar-Yehuda, and P. Fishman	
Adenosine Receptors and Asthma	329
Constance N. Wilson, Ahmed Nadeem, Domenico Spina, Rachel Brown, Clive P. Page, and S. Jamal Mustafa	
Adenosine Receptors, Cystic Fibrosis, and Airway Hydration	363
Gulnur Com and J.P. Clancy	
Adenosine Receptors in Wound Healing, Fibrosis and Angiogenesis	383
Igor Feoktistov, Italo Biaggioni, and Bruce N. Cronstein	
Adenosine Receptors and Cancer	399
P. Fishman, S. Bar-Yehuda, M. Synowitz, J.D. Powell, K.N. Klotz, S. Gessi, and P.A. Borea	
Adenosine Receptors and the Kidney	443
Volker Vallon and Hartmut Osswald	
Adenosine Receptors and the Central Nervous System	471
Ana M. Sebastião and Joaquim A. Ribeiro	
Adenosine Receptors and Neurological Disease: Neuroprotection and Neurodegeneration	535
Trevor W. Stone, Stefania Ceruti and Mariapia P. Abbracchio	
Adenosine A_{2A} Receptors and Parkinson's Disease	589
Micaela Morelli, Anna R. Carta, and Peter Jenner	
Adenosine Receptor Ligands and PET Imaging of the CNS	617
Andreas Bauer and Kiichi Ishiwata	
Index	643