

CONTENTS

PATHOPHYSIOLOGY OF IRON OVERLOAD

1. Animal Models of Hereditary Iron Transport Disorders 1
Nancy C. Andrews
2. Mechanism of Iron Toxicity 19
Antonello Pietrangelo
3. Role of Non-Transferrin-Bound Iron in the Pathogenesis of Iron Overload
and Toxicity 45
Pierre Brissot and Olivier Loréal
4. Intracellular and Extracellular Labile Iron Pools 55
*Ioav Cabantchik, Or Kakhlon, Silvina Epsztejn, Giulianna Zanninelli,
and William Breuer*
5. Cardioprotective Effect of Iron Chelators 77
Chaim Hershko, Gabriela Link and Abraham M. Konijn

CHELATION THERAPY IN TRANSFUSIONAL SIDEROSIS

6. Results of Long Term Iron Chelation Treatment with Deferoxamine 91
Bernard A. Davis and John B. Porter
7. Long Term Deferiprone Chelation Therapy 127
Victor Hoffbrand and Beatrix Wonke

DEVELOPMENT OF NEW IRON CHELATORS

8. Iron Chelator Chemistry 141
Zu D. Liu, Ding Y. Liu, and Robert C. Hider

9. Structure-Activity Relationships Among Desazadesferrithiocin Analogues . . . 167
Raymond J. Bergeron, Jan Wiegand, James S. McManis, William R. Weimar, and Guangfei Huang
10. ICL670A: Preclinical Profile 185
Hanspeter Nick, Agnes Wong, Pierre Acklin, Bernard Faller, Yi Jin, René Lattmann, Thomas Sergejew, Suzanne Hauffe, Helmut Thomas, and Hans Peter Schnebli
11. Pyridoxal Isonicotinoyl Hydrazone and Its Analogues 205
Joan L. Buss, Marcelo Hermes-Lima, and Prem Ponka

NOVEL STRATEGIES IN IRON CHELATION TREATMENT

12. Therapeutic Potential of Iron Chelators in Cancer Therapy 231
Des Richardson
13. Antimalarial Effect of Iron Chelators 251
Victor R. Gordeuk and Mark Loyevsky
- Index 273