1. Record Nr. UNINA9910784300803321 Autore Pace Betty Titolo Renaissance of sickle cell disease research in the genome era [[electronic resource] /] / Betty Pace Pubbl/distr/stampa London, : Imperial College Press Hackensack, NJ,: Distributed by World Scientific Pub., c2007 **ISBN** 1-281-12051-0 9786611120511 1-86094-796-4 Descrizione fisica 1 online resource (394 p.) Disciplina 616.1527 Soggetti Sickle cell anemia Genomics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents; PART I: THE HUMAN GENOME ERA, A HISTORIC PERSPECTIVE; PART II: CLINICAL RESEARCH PERSPECTIVES; PART III: BASIC RESEARCH PERSPECTIVES: PART IV: COMMUNITY PERSPECTIVES: Contributors: Foreword Francis S. Collins and Alan E. Guttmacher; Acknowledgments; Introduction . . . The Journey Inward Betty S. Pace; 1. Sickle Cell Disease: Demystifying the Beginnings Clarice Reid and Griffin Rodgers; 2. Sponsorship of Sickle Cell Disease Research by the National Institutes of Health: A Brief History and Projections for the Future Gregory L. Evans and David G. Badman 3. The Human Genome Project Betty S. Pace4. Sickle Cell Disease: A Phenotypic Patchwork Kim Smith-Whitley and Betty S. Pace; 5. Preventive Care and Advances in the Treatment of Sickle Cell Disease Charles T. Quinn and George R. Buchanan; 6. Sickle Cell Disease in Adults Johnson Haynes, Jr. and Ardie Pack-Mabien; 7. Pain in Sickle Cell Disease: A Multidimensional Construct Lennette J. Benjamin and Richard Payne; 8. Transfusion Therapy in Sickle Cell Disease Carolyn Hoppe, Robert Adams and Elliot Vichinsky; 9. Hemoglobin S

Polymerization, Just the Beginning Frank A. Ferrone

10. Damage to the Red Blood Cell Membrane in Sickle Cell Disease

Steven R. Goodman and Clinton Joiner11. Fetal Hemoglobin for What Ails Sickle Hemoglobin Solomon F. Ofori-Acquah and Betty S. Pace; 12. Genetic Modulation of Sickle Cell Disease Martin H. Steinberg and Swee Lay Thein; 13. Molecular Framework of Hemoglobin Switching Steven Fiering; 14. Dynamic Nucleoprotein Structure of the ß-Globin Locus: Establishing a Rational Molecular Basis for Therapeutic Modulation o 15. Vertebrate Models for Sickle Cell Disease Research Barry H. Paw, Seong-Kyu Choe, Flavia C. Costa, Shirin V. Sundar and Kenneth Peterson16. Stem Cell Biology Wei Li and Alan W. Flake; 17. Bone Marrow Transplantation Robert I. Raphael and Mark C. Walters; 18. Genetically Engineered Cures: Gene Therapy for Sickle Cell Disease Punam Malik and Philippe Leboulch: 19. Sickle Cell Disease: The Past, Present and Future Social and Ethical Dilemmas Vence L. Bonham, Jr., Carlton Haywood, Jr. and Vanessa Northington Gamble 20. It Takes a Village to Cure Sickle Cell Disease Rosie Peterson and Denise Davis-Maye21. Beyond National Borders: A Global Perspective on Advances in Sickle Cell Disease Research and Management, and New Challenges in the Genome Era Solomon F. Ofori-Acquah and Kwaku Ohene-Frempong; Index

Sommario/riassunto

The Human Genome Project has spawned a Renaissance of research faced with the daunting expectation of personalized medicine for individuals with sickle cell disease in the Genome Era. This book offers a comprehensive and timeless account of emerging concepts in clinical and basic science research, and community concerns of health disparity to educate professionals, students and the general public about meeting this challenging expectation. Contributions from physicians, research scientists, scientific administrators and community workers make Renaissance of Sickle Cell Disease Research in the