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Nota di contenuto	Frontmatter -- Contents -- Preface -- Acknowledgments -- Chapter 1. Cells, Genes, and Evolution: On the Nature and Workings of Life -- Chapter 2. The Tree of Life: Universal Phylogeny and Its Discontents -- Chapter 3. A World Mostly Made Up of Microbes: Bacteria, Archaea, and Eukarya -- Chapter 4. The Deep Roots of Cellular Life: The Common Ancestry of Living Things -- Chapter 5. The Perplexing Chronicles of Bioenergetics: Making a Living, Now and in the Past -- Chapter 6. Life's Devices: On the Evolution of Prokaryotic Cells and Their Parts -- Chapter 7. Emergence of the Eukaryotes: The Second Mystery in Cell Evolution -- Chapter 8. Symbionts into Organelles: Mitochondria, Plastids, and Their Kin -- Chapter 9. Reading the Rocks: What We Can Infer from Geology -- Chapter 10. Ultimate Riddle: Origin of Cellular Life -- Chapter 11. The Crooked Paths of Cell Evolution: Cell Evolution Is Special -- Chapter 12. Summing Up: Journey without Maps -- Notes -- Glossary -- References -- Index
Sommario/riassunto	The origin of cells remains one of the most fundamental problems in biology, one that over the past two decades has spawned a large body

of research and debate. With In Search of Cell History, Franklin M. Harold offers a comprehensive, impartial take on that research and the controversies that keep the field in turmoil. Written in accessible language and complemented by a glossary for easy reference, this book investigates the full scope of cellular history. Assuming only a basic knowledge of cell biology, Harold examines such pivotal subjects as the relationship between cells and genes; the central role of bioenergetics in the origin of life; the status of the universal tree of life with its three stems and viral outliers; and the controversies surrounding the last universal common ancestor. He also delves deeply into the evolution of cellular organization, the origin of complex cells, and the incorporation of symbiotic organelles, and considers the fossil evidence for the earliest life on earth. In Search of Cell History shows us just how far we have come in understanding cell evolution-and the evolution of life in general-and how far we still have to go.