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Autore	Agutter Paul S
Titolo	About Life [[electronic resource]] : Concepts in Modern Biology / / by Paul S. Agutter, Denys N. Wheatley
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Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (251 p.)
Disciplina	570.1
Soggetti	Cell biology Neurosciences Ecosystems Evolutionary biology Cell Biology Evolutionary Biology
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	Introduction -- Ingredients of the Simplest Cells (Prokaryotes and the Sizes of their Contents) -- Bigger Cells (Eukaryotic Cells and their Contents) -- Hives of Industry (A Survey of Intermediary Metabolism) -- Delights of Transport (Mechanisms by which Cellular Contents are Moved around) -- As if Standing Still (Cellular Homeostasis and Regulatory Processes) -- Internal State and Gene Expression (Transcription and its Control) -- Sustaining and Changing the Internal State (The Interrelationship between Gene Expression and the Cell's Current Composition and Functional State) -- Responding to the Environment (Signal Processing and its Relationship to Cell Structure, Metabolism and Gene Expression) -- The Living State (A general characterization of 'life') -- Stability and Change in DNA (Why DNA is highly stable and a Survey of the Mechanisms by which it can Change) -- The Spice of Life (Variety, Habitats, Natural Selection, Symbiosis, Ecosystems) -- Curriculum Vitae (An Outline History of Life on Earth) -- The Origin of Life (Major Ideas and Unanswered Questions) -- Other

Worlds (Ideas about Extraterrestrial Life, including a Critique of the Assumptions behind the 'Drake Equation' and the SETI Project) -- Intelligent Behaviour and Brains (The Meaning of 'Intelligence') -- Human Intelligence (Human Evolution and the Question of Human Uniqueness) -- Cells, Brains and Computers: towards a Characterisation of Mind -- Glossary -- Bibliography.

Sommario/riassunto

This book uses modern biological knowledge to tackle the question: "What distinguishes living organisms from the non-living world?" In the first few chapters, the authors draw on recent advances in cell and molecular biology to develop an account of the "living state" that applies to all organisms, but only to organisms. Subsequent chapters use this account to explore questions about evolution, the origin of life and the possibility of extraterrestrial life. Towards the end of the book the authors consider human evolution, intelligence and the extent to which our species can be regarded as biologically unique. About Life is written as far as possible in non-technical language; all scientific terms are explained straightforwardly when they are introduced. It is aimed at the general, non-specialist reader, but the novel approach that it takes to general issues in biology will also interest students of the life sciences.
