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Titolo	Evolutionary Biology: Exobiology and Evolutionary Mechanisms [[electronic resource] /] / edited by Pierre Pontarotti
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Soggetti	Evolutionary biology Animal genetics Plant genetics Biodiversity Plant systematics Plant taxonomy Animal systematics Animal taxonomy Evolutionary Biology Animal Genetics and Genomics Plant Genetics and Genomics Plant Systematics/Taxonomy/Biogeography Animal Systematics/Taxonomy/Biogeography
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The First Experiments of Ascidian and Sea Urchin Eggs Fertilization -- Oncic Openness as Key Factor in the Evolution of Biological Systems -- Effects of Epistasis and Pleiotropy on Fitness Landscapes -- Autocatalytic Sets: The Origin of Life, Evolution, and Functional Organization -- Interactions of Clay Minerals with RNA Components -- Bottom-up Protocell Design: Gaining Insights in the Emergence of

Complex Functions -- From Life to Exolife: The Interdependence of Astrobiology and Evolutionary Biology -- The Possible Roles of Water in the Prebiotic Chemical Evolution of DNA An Approach by Single Molecule Studies -- Domain Architecture Evolution of Metazoan Proteins -- Of Trees and Bushes: Phylogenetic Networks as Tools to Detect, Visualize and Model Reticulate Evolution -- Horizontal Acquisition of Prokaryotic Genes for Eukaryote Functioning and Niche Adaptation -- Molecular Evolution of Disrupted Transfer RNA Genes and Their Introns in Archaea -- Memory of Temperature in the Seasonal Control of Flowering Time: an Unexplored Link Between Meteorology and Molecular Biology -- Current approaches in spatial genetics -- Consequences of Segregation and Genetic Exchange on Adaptability in Arbuscular Mycorrhizal fungi (AMF) -- Mitochondrial Genes, Sex Determination and Hermaphroditism in Freshwater Mussels (Bivalvia: Unionoida) -- Variable Lymphocyte Receptors in Jawless Vertebrates: Illuminating the Origin and Early Evolution of Adaptive Immunity -- An Evo-Devo perspective on Hybrid Infertility and Speciation -- Genetic and Molecular Dissection of Animal Decision-Making: A New Frontier for Genetic Analysis. .

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Sommario/riassunto

This book presents 19 selected contributions to the 16th Evolutionary Biology Meeting, which took place in September 2012 in Marseilles. The aims of these annual meetings, which gather together leading evolutionary biologists and other scientists, are to promote the exchange of ideas and to encourage interdisciplinary collaborations. The first chapter deals with the history of a great discovery: The first experiments on ascidian and sea urchin egg fertilization. The remaining contributions are grouped under the following categories: · Evolutionary biology concepts · Exobiology and the origin of life · Evolutionary mechanisms Offering an up-to-date overview of recent findings in the field of evolutionary biology, this book is an invaluable source of information for scientists, teachers and advanced students.

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