1. Record Nr. UNINA9910456728803321

Autore	Bonner John Tyler
Titolo	First Signals : The Evolution of Multicellular Development / / John Tyler Bonner
Pubbl/distr/stampa	Princeton, NJ : , : Princeton University Press, , [2009] ©2001
ISBN	1-282-45846-9 9786612458460 1-4008-3058-3
Edizione	[Core Textbook]
Descrizione fisica	1 online resource (159 p.)
Disciplina	572.838
Soggetti	Cell interaction Cells -- Evolution Developmental biology Developmental cytology Signal Transduction Biological Evolution Cell Differentiation Origin of Life Biophysics Biology Health & Biological Sciences Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Frontmatter -- CONTENTS -- PREFACE -- 1. Introduction -- 2. From Embryology to Developmental Biology -- 3. The Origin of Multicellularity -- 4. Size and Evolution -- 5. The Evolution of Signaling -- 6. The Basic Elements of Multicellular Development -- 7. Development in the Cellular Slime Molds -- 8. Conclusion -- BIBLIOGRAPHY -- INDEX
Sommario/riassunto	The enormous recent success of molecular developmental biology has

yielded a vast amount of new information on the details of development. So much so that we risk losing sight of the underlying principles that apply to all development. To cut through this thicket, John Tyler Bonner ponders a moment in evolution when development was at its most basic--the moment when signaling between cells began. Although multicellularity arose numerous times, most of those events happened many millions of years ago. Many of the details of development that we see today, even in simple organisms, accrued over a long evolutionary timeline, and the initial events are obscured. The relatively uncomplicated and easy-to-grow cellular slime molds offer a unique opportunity to analyze development at a primitive stage and perhaps gain insight into how early multicellular development might have started. Through slime molds, Bonner seeks a picture of the first elements of communication between cells. He asks what we have learned by looking at their developmental biology, including recent advances in our molecular understanding of the process. He then asks what is the most elementary way that polarity and pattern formation can be achieved. To find the answer, he uses models, including mathematical ones, to generate insights into how cell-to-cell cooperation might have originated. Students and scholars in the blossoming field of the evolution of development, as well as evolutionary biologists generally, will be interested in what Bonner has to say about the origins of multicellular development--and thus of the astounding biological complexity we now observe--and how best to study it.

2. Record Nr. UNINA9910743378403321

Titolo	Advanced Energy and Control Systems : Select Proceedings of 3rd International Conference, ESDA 2020 / / edited by Chandan Kumar Chanda, Jerzy R. Szymanski, Afzal Sikander, Pranab Kumar Mondal, Dulal Acharjee
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-16-7274-1 981-16-7273-3
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (305 pages)
Collana	Lecture Notes in Electrical Engineering, , 1876-1119 ; ; 820
Disciplina	629.8
Soggetti	Electric power production Electric machinery Automatic control Robotics Automation Wind power Electric power distribution Electrical Power Engineering Electrical Machines Control, Robotics, Automation Mechanical Power Engineering Wind Energy Energy Grids and Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Industrial Scenario of Renewable Energy BasedElectromobility -- Covid-19: Impact Analysis on Power Sector (A Comprehensive Review on Demand Change) -- Electricity Price Forecasting using LSTM Network and K-means clustering by considering the effect of wind power generation -- Solid waste management challenges in India -- Electrochemical conversion of CO2 into useful chemicals and PKL electricity -- Graphical Approach to Recognize Optimal Distribution

Network Reconfiguration. .

Sommario/riassunto

This book gathers selected research papers presented at the Third International Conference on Energy Systems, Drives, and Automations (ESDA 2020). It covers a broad range of topics in the fields of renewable energy, power management, drive systems for electrical machines, and automation. In a spam of about a few interesting articles, effort had gone in to critically discuss about the control system, energy management and distribution in a unified approach common to electrical, Control and mechanical engineering. This book also comprehensively discusses a variety of related tools and techniques and will be a valuable resource for researchers, professionals, and students in electrical and mechanical engineering disciplines.