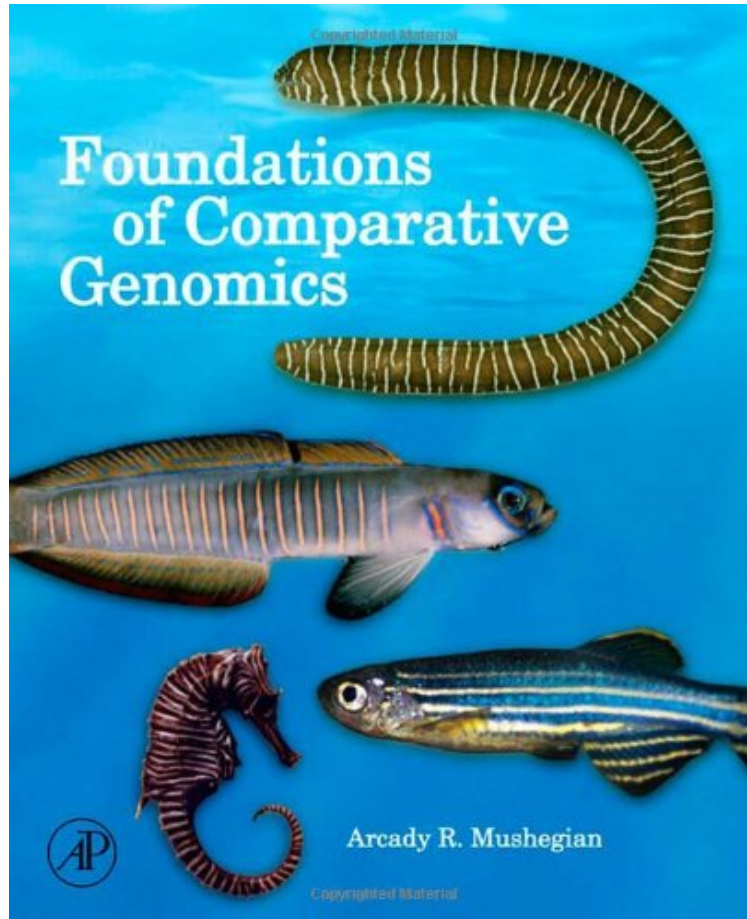


Foundations of Comparative Genomics

Arcady R. Mushegian

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#4766586 in Books 2007-04-13Original language:EnglishPDF # 1 10.00 x .69 x 7.011, 1.10 #File Name: 0120887940280 pages | File size: 43.Mb

Arcady R. Mushegian : Foundations of Comparative Genomics before purchasing it in order to gage whether or not it would be worth my time, and all praised Foundations of Comparative Genomics:

This book provides an overview of computational analysis of genes and genomes, and of some most notable findings that come out of this work. Foundations of Comparative Genomics presents a historical perspective, beginning with early analysis of individual gene sequences, to present day comparison of gene repertoires encoded by completely sequenced genomes. The author discusses the underlying scientific principles of comparative genomics, argues that completion of many genome sequences started a new era in biology, and provides a personal view on several state-of-the-art issues, such as systems biology and whole-genome phylogenetic reconstructions. This book is an essential reference for researchers and students in computational biology, evolutionary biology, and genetics.Presents an historic overview of genome biology and its achievementsIncludes topics not covered in other books such as minimal

and ancestral genomes Discusses the evolutionary resilience of protein-coding genes and frequent functional convergence at the molecular level Critically reviews horizontal gene transfer and other contentious issues Covers comparative virology as a somewhat overlooked foundation of modern genome science

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About the Author Arcady R. Mushegian is Director of Bioinformatics at Stowers Institute for Medical Research in Kansas City and Professor of Microbiology at Kansas University Medical Center. He was born in Moscow, USSR, and graduated from Moscow State University.