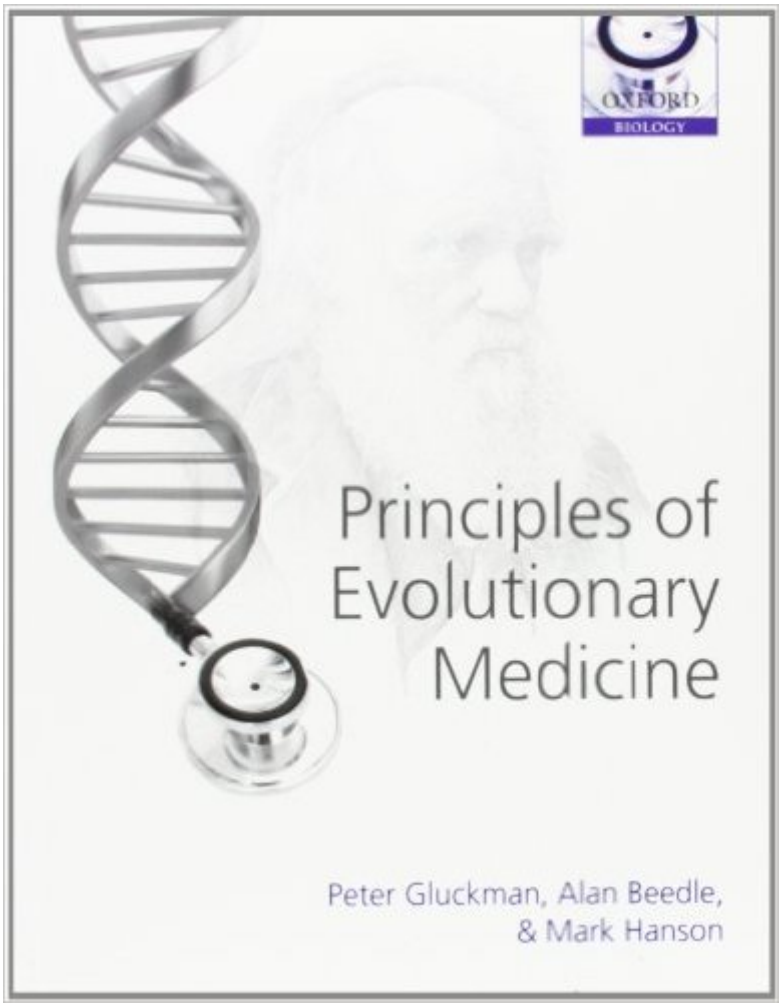
Principles Of Evolutionary Medicine



Synopsis

Evolutionary science is critical to an understanding of integrated human biology and is increasingly recognized as a core underpinning discipline by medical and public health professionals. Advances in the fields of genomics, epigenetics, developmental biology and epidemiology have led to the growing realization that incorporating evolutionary thinking is essential for medicine to achieve its full potential. This is the first integrated and comprehensive textbook to explain the principles of evolutionary biology from a medical perspective and to focus on how medicine and public health might utilize evolutionary biology. It is written in a style which is accessible to a broad range of readers, whether or not they have had formal exposure to evolutionary science. Principles of Evolutionary Medicine is divided into three sections: the first provides a systematic approach to the principles of evolutionary biology as they apply to human health and disease, using examples specifically relevant to medicine. It incorporates chapters on evolutionary processes, molecular evolution, the evolution of humans, life history theory, and evolutionary-developmental biology. The second part illustrates the application of these principles to our understanding of nutrition and metabolism, reproduction, combatting infectious disease and stress, and human behaviour. The final section provides a general framework to show in practical terms how the principles of evolutionary medicine can be applied in medical practice and public health. This novel textbook provides the necessary toolkit for doctors and other health professionals, medical students and biomedical scientists, as well as anthropologists interested in human health, to gain a better understanding of the evolutionary processes underlying human health and disease.

Book Information

Paperback: 312 pages
Publisher: Oxford University Press; 1 edition (September 14, 2009)
Language: English
ISBN-10: 0199236399
ISBN-13: 978-0199236398
Product Dimensions: 9.6 x 0.5 x 7.3 inches
Shipping Weight: 1.5 pounds
Average Customer Review: 4.4 out of 5 starsÂ Â See all reviewsÂ (5 customer reviews)
Best Sellers Rank: #328,635 in Books (See Top 100 in Books) #67 inÂ Books > Science & Math > Biological Sciences > Biology > Developmental Biology #149 inÂ Books > Textbooks > Medicine & Health Sciences > Medicine > Special Topics > History #430 inÂ Books > Medical Books > History

Customer Reviews

Well-written,well-edited, full of interesting information. This book is not easily summarized since there is hardly a wasted sentence. The only problem may be the intended audience. I have a medical background but not enough genetics to spoil the plot. It is pitched within the range of a "lay" audience but not all may find it as fascinating. Probably too elementary for a geneticist,too complex for a middle schooler. Everyone else should read this book. It would win an oscar in it’s category.

The overview of evolution and genetics goes up to page 150 or so. This is more than half the text. There was a certain amount of repetition in the remainder as well. Many examples get brought up multiple times.It wasn’t poorly written though. My theory is that evolutionary medicine has just not developed as a field to really support such an introductory textbook.

Bought this book for an undergrad course in a new growing way of applying medicine. Its a great introductory text, especially by linking genetics and the bigger picture of medicine, disease, and evaluating disease. A must consider for future doctors, especially with the idea that genetics plays a larger role in disease risk!

As far as textbooks go, this is an engaging read. It starts with an overview of the fundamentals of evolution, applies these concepts to the human and medical world, and finally expresses how evolutionary biology can change how we view the natural, material world. In particular, the text identifies ultimate causes for diseases (the domain of Darwinian or evolutionary medicine), which are differentiated from proximal causes of diseases (the domain of modern medical practice).Note: Required text for BIO 350 at SBU.

Evolutionary medicine is a very interesting matter. This book help in an easy way to understand this theme, I really recommend it.

Competent Genetic Algorithms (Genetic Algorithms and Evolutionary Computation) Information Processing with Evolutionary Algorithms: From Industrial Applications to Academic Speculations (Advanced Information and Knowledge Processing) Rlisp ’88: An Evolutionary Approach to Program Design and Reuse (World Scientific Series in Computer Science) Refactoring Databases: Evolutionary Database Design Kanban: Successful Evolutionary Change for Your Technology Business Evolutionary Psychology (2nd Edition) A Plea for the Animals: The Moral, Philosophical, and Evolutionary Imperative to Treat All Beings with Compassion Dogs: Their Fossil Relatives and Evolutionary History Dr. Tatiana’s Sex Advice to All Creation: The Definitive Guide to the Evolutionary Biology of Sex Functional Anatomy of the Vertebrates: An Evolutionary Perspective The Future of Pharma: Evolutionary Threats and Opportunities The Evolutionary Void: Void Trilogy, Book 3 Globalization, Economic Development and Inequality: An Alternative Perspective (New Horizons in Institutional and Evolutionary Economics Series) Evolution and Christian Faith: Reflections of an Evolutionary Biologist Renaissance Medicine (History of Medicine)