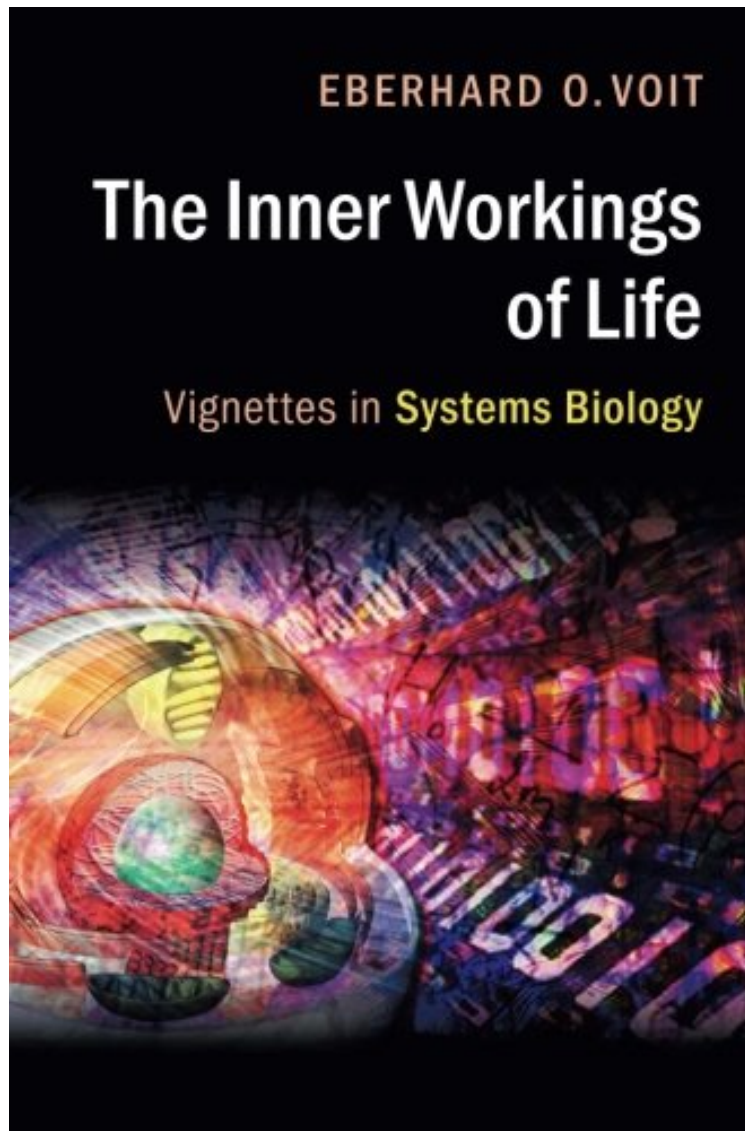


(Mobile book) The Inner Workings of Life: Vignettes in Systems Biology

The Inner Workings of Life: Vignettes in Systems Biology

Eberhard O. Voit

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#1929658 in Books Voit Eberhard O 2016-05-10 2016-05-10Original language:English 8.98 x .39 x 5.981, .70 #File Name: 131660442X218 pagesThe Inner Workings of Life Vignettes in Systems Biology | File size: 36.Mb

Eberhard O. Voit : The Inner Workings of Life: Vignettes in Systems Biology before purchasing it in order to gage whether or not it would be worth my time, and all praised The Inner Workings of Life: Vignettes in Systems Biology:

1 of 1 people found the following review helpful. Voit manages to dive deep into the subject and takes the reader along on an easy to digest journeyBy Gerard Joseph GrilloDr. Voit brings 'systems biology' out of the shadows and

into the light, giving the subject a clarity and accessibility that haven't existed in previous books. Voit manages to dive deep into the subject and takes the reader along on an easy to digest journey. And he somehow manages to make the subject fun. For instance, instead of a 'Preface' or 'Introduction,' Voit gives the reader an 'Appetizer.' And the chapters have provocative titles like, *Id rather be fishin* and *Close only counts in horseshoes and hand grenades*, and *Love thyself and fight all others*. Voit, a recognized global expert in the nascent field, is obviously having fun telling the story of this holistic approach to biological research, commiserating with the reader while sharing his vast knowledge. He lightheartedly mocks the overuse of some jargon within his field (there's a whole chapter, most of it tongue-in-cheek while also managing to be explanatory, on the nearly ubiquitous suffix -omics), but then he includes a helpful, informative section called *Gentle Jargon* near the back of the book. If you've got even a passing interest in biological research, this is a must read. 0 of 0 people found the following review helpful. Very enjoyable reading. By Rui Alves I bought the book and read it on a single trip home (a fairly long one, though!) This is the perfect book for all those people who are interested in Biology and want to know what underlies current buzzwords such as Systems Biology, Systems Medicine, Personalized Medicine, or Biological Noise. The book is written in a style that is very easy to follow and I would say that it assumes a level of knowledge at the level you need to have to enjoy books by Carl Sagan about astronomy or by S.J. Gould about evolution. The author explains difficult concepts in an easy way for the non-expert and touches pretty much all important aspects of current Systems Biology. Although this book aims at a general audience, you will enjoy the anecdotes throughout the book even if you are a professional Systems Biologist. You might even learn some new things! I did! Highly recommend it! 1 of 1 people found the following review helpful. Subtly provocative thoughtfulness. By Customer This small book is full of wise and gently humorous perspectives on all aspects of systems biology. The first three chapters should be required reading for students of biology who have yet to think about how big data and mathematics can shed light on how cells work and organisms don't. There's a vignette for everyone. Most are infused with interesting cultural references, and they will nudge readers to think about things just a little bit differently. Suitable either for digestion on a long plane journey, or occasional dips at leisure.

Living systems are dynamic and extremely complex and their behaviour is often hard to predict by studying their individual parts. Systems biology promises to reveal and analyse these highly connected, regulated and adaptable systems, using mathematical modelling and computational analysis. This new systems approach is already having a broad impact on biological research and has potentially far-reaching implications for our understanding of life. Written in an informal and non-technical style, this book provides an accessible introduction to systems biology. Self-contained vignettes each convey a key theme and are intended to enlighten, provoke and interest readers of different academic disciplines, but also to offer new insight to those working in the field. Using a minimum amount of jargon and no mathematics, Voit manages to convey complex ideas and give the reader a genuine sense of the excitement that systems biology brings with it, as well as the current challenges and opportunities.

"Popular science books have enabled the public to gain an appreciation for advances in a variety of esoteric disciplines ranging from chaos theory to evolutionary biology. But we lack a 'fun read' for the emerging field of systems biology, which is bringing together computer scientists, physicists and biologists to figure out the complex inner workings of living cells. Eberhard Voit has filled that gap with his new book. Voit provides the reader with an insider's tour of systems biology, providing us [with] a sense of how this exciting field will change our lives in the coming years. Impress and challenge your book club with this new offering." James J. Collins, Massachusetts Institute of Technology and Harvard University "This delightful book provides a very readable overview of the emerging field of systems biology. The author, an expert in the field, describes fundamental concepts and tools in systems biology in a conversational style that makes the material very accessible to non-experts and a joy to read. The combination of interesting conceptual information, humor, history, and anecdotes makes this book hard to put down. And no need to worry about the technical mathematics underlying much of systems biology; there is not a single equation in the book! So if you are interested in learning something about negative feedback loops, adaptation, small regulatory RNAs, -omics research, chaos, microarrays, data mining, genome-wide association studies, or a host of other concepts and tools without diving into the details, this is the book for you." Richard Bertram, Florida State University "Now that systems biology has become an established research field, it is overdue to present it to the educated lay person. Eberhard Voit, a well-established scientist in the field, has accepted the challenge to provide a textbook without a single mathematical formula. The result is a superb ride through various topics in systems biology in form of a collection of small stand-alone vignettes: a reading enjoyment for everyone." Andreas Kremling, Technische Universitt Mnchen "This is an intriguing storytelling book about life written by a mastermind of systems biology. Anyone interested in the essential mechanism of living systems would greatly enjoy reading it. Dr Voit has successfully done all the 'complicated' storytelling in a clear and intuitive way without using any single equation." Kwang-Hyun Cho, Korea Advanced Institute of Science and Technology "Voit is one of the leading systems biologists of our times. He is well known for his lucid textbooks and creative technical advances. In this gem of a book he manages to explain with clarity, insight, and subtle humor complex topics of systems biology that are still evolving,

often found only in the primary literature, or hidden in the backstory of press releases attempting to create a buzz. I am sure my colleagues and non-scientist friends alike will find the book stimulating and fun to read. I venture to guess that even a young reader who is curious about such topics, like my own grandson, will find the vignettes captivating. This readable, witty account is sure to garner a wide readership." Michael A. Savageau, University of California, Davis"[This] book is written by a leading figure in the field of systems biology. Previous books by the same author have become standard texts in the field and this book is again an excellent example of Eberhard Voit's outstanding communication skills. Given his standing in the field and long-standing experience, it is appropriate that he addresses with this book foundational issues. I wouldn't miss a talk by Eberhard Voit and I certainly would buy and recommend this book to anyone who is interested in understanding the complexity of living systems. The audience will not only be researchers (in various fields, from the engineering and physical sciences, to the biological and medical sciences) but the book will also appeal to a wider audience with a general interest in recent developments in the life sciences, taking a systems approach ... This book is a perfect recommendation for pupils and students, encouraging them to become scientists." Olaf Wolkenhauer, University of Rostock"This is a fascinating book: lucid, logical and lively, full of fascinating scientific stories [on] the inner workings of life. Professor Eberhard Voit presents his case for the systems biology approach with elegance. He illustrates how modern biology calls for an openness that transcends the traditional scientific approach and techniques, and it takes us to the heart of a more complex scientific endeavor integrating mathematics, computer science and engineering to unravel the principles of life. It is a must-read for anyone, novice or professional, interested about the foundations of life, and the present and future of research in the biomedical sciences." Santiago Schnell, University of Michigan Medical School

About the Author Eberhard Voit is a pioneer and leader in systems biology with a passion for education at all levels. He is Professor and David D. Flanagan Chair in Biological Systems, as well as a Georgia Research Alliance Eminent Scholar in the Wallace H. Coulter Department of Biomedical Engineering at the Georgia Institute of Technology and Emory University. He is the author of one of the leading textbooks in the field, wrote one of the first systems biology books to be published, and has written over 250 scientific articles. His research focuses on genomic, metabolic, and signalling systems with applications reaching from microbial, ecological, and plant systems to human diseases.