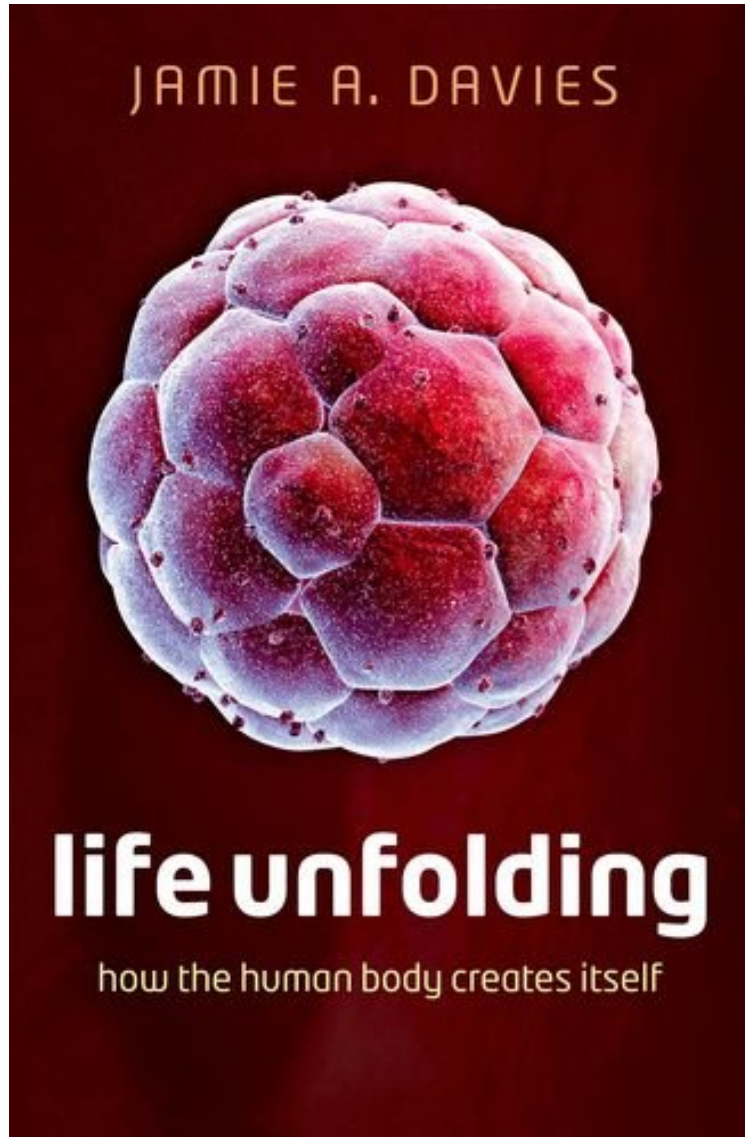


(Pdf free) Life Unfolding: How the human body creates itself

Life Unfolding: How the human body creates itself

Jamie A. Davies

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Jamie A. Davies : Life Unfolding: How the human body creates itself before purchasing it in order to gage whether or not it would be worth my time, and all praised Life Unfolding: How the human body creates itself:

67 of 68 people found the following review helpful. Fascinating material translated into plain EnglishBy Steve GThe material in this book, embryology or how we develop from a fertilized egg into what we are now, is fascinating but extremely complex. However, author Jamie A. Davies did a masterful job of simplifying the material. Davies did this in several ways, including an extensive glossary, over 80 illustrations, and descriptions of experiments (not graphic so

don't worry about this). To his favour, Davies is very honest about what is known and what is conjecture. Davies used some humor and I felt that I got to know him a little. The only weak point of the book is that the complexity of the material means that some of the information may be inaccessible to a reader without some knowledge of biology. I strongly recommend this book to anyone interested in biology or science in general. 0 of 0 people found the following review helpful. Excellent enrichment for AP Biology, good cell biology refresher. By O. Long. This book does three things well. 1. It helps people understand basic biochemistry and cell signaling within the context of human development. 2. It explains biology deeper than 9th grade levels metaphors do. (Chapter 1 alone destroys the blueprint/DNA metaphor very artfully). 3. It answers how humans are put together giving details every step of the way. The book also gives many examples of physiological processes and explains how cells interact with each other and their environment. It's easy to read and the diagrams are easy to understand. 12 of 13 people found the following review helpful. An Amazing Exploration into the Intelligence That is Fundamental in All of Life. By Richard O. Jacobs. When we think of intelligence we think of what we see and what we do and why we do; this exploration deep within the intelligence of the cells of the human body makes pale anything we think our "rational minds" produce. I had no idea the depth, creativity and importance of how cells operate. This discussion is about our body but it is representative of the process in all of life and it is amazing.

Where did I come from? Why do I have two arms but just one head? How is my left leg the same size as my right one? Why are the fingerprints of identical twins not identical? How did my brain learn to learn? Why must I die? Questions like these remain biology's deepest and most ancient challenges. They force us to confront a fundamental biological problem: how can something as large and complex as a human body organize itself from the simplicity of a fertilized egg? A convergence of ideas from embryology, genetics, physics, networks, and control theory has begun to provide real answers. Based on the central principle of 'adaptive self-organization', it explains how the interactions of many cells, and of the tiny molecular machines that run them, can organize tissue structures vastly larger than themselves, correcting errors as they go along and creating new layers of complexity where there were none before. *Life Unfolding* tells the story of human development from egg to adult, from this perspective, showing how our whole understanding of how we come to be has been transformed in recent years. Highlighting how embryological knowledge is being used to understand why bodies age and fail, Jamie A. Davies explores the profound and fascinating impacts of our newfound knowledge.

"From egg to adult body, *Life Unfolding* by Jamie Davies is a demanding but wonder-filled account of the simple interactions that create complex structures." -- Claire Ainsworth, *New Scientist* "Davies offers a detailed ride through the mind-boggling number of simultaneous self-organizing activities of growth." - *Publishers Weekly* About the Author: Jamie A. Davies, Professor of Experimental Anatomy, University of Edinburgh. Since 1995, Jamie A. Davies has run his own laboratory at the University of Edinburgh, with a multi-disciplinary focus on discovering how mammalian organs construct themselves and how we can use this knowledge to build new tissues and organs for those in need. He has published around 90 research papers in the field of mammalian development, published a major specialist monograph (*Mechanisms of Morphogenesis*, Associated Press, 2005), and edited three multi-author books in the fields of development, stem cells, and tissue engineering. He is a Fellow of the Institute of Biologists, a Fellow of the Royal Society of Medicine, and a Fellow of the Higher Education Academy. He is also Editor-in-Chief of the journal, *Organogenesis*.