

# How Do We Know the Nature of the Cell, 2005, Josepha Sherman, The Rosen Publishing Group, 2005, 112 pages, 9781404200722

In the tradition of the classic *Lives of a Cell*, but with the benefit of the latest research, internationally acclaimed embryologist Lewis Wolpert demonstrates how human life derives from a single cell and then grows into a body, an incredibly complex society made up of billions of them. When we age, our cells cannot repair the damage they have undergone; when we get ill, it is because cells are so damaged they stop working and die. This is a good book from which to learn the reality of how little we know about life and how distant prospects like artificial intelligence, immortality or even the cure for cancer are. The book does answer the "How" question in the title, but I am not convinced as to the "Why". ...more. flag 2 likes

Like see review. May 22, 2017 Nicky rated it liked it. Lewis Thomas published multiple books throughout his career, the first being *The Lives of a Cell: Notes of a Biology Watcher*. In 1979 he published *The Medusa and the Snail: More Notes of a Biology Watcher*. He wrote an autobiographical book in 1983, *The Youngest Science: Notes of a Medicine-Watcher*. This essay focuses on how connected humanity is to nature and how we must make strides to understand our role. Thomas argues that even our own bodies are not solely ours since the mitochondria and other organelles are descended from other organisms. He creates a metaphor of the Earth as a giant cell itself with humans just as one part of a vast system. Thoughts for a Countdown. Astronauts must be decontaminated before they are allowed to interact on Earth. How do we really know that one species evolved into another? By carefully studying fossils, scientists have been able to link many extinct species with ones that survive today, sometimes indicating that one descended from another. For example, in 2014 researchers described the fossils of a 55-million year old carnivore called *Dormaalocyon*, which may be a common ancestor of all today's lions, tigers and bears. At this point, Lenski's habit of regularly freezing samples of the bacteria proved crucial. He was able to go back through older samples, and trace the changes that led to the *E. coli* eating citrate.