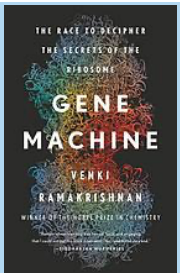
Discussion Guide



Gene Machine
Venki Ramakrishnan

Basic Books
2018
288 pages
ISBN: 978-0465093366

Human Genetics

Summary

Everyone has heard of DNA. But by itself, DNA is just an inert blueprint for life. It is the ribosome — an enormous molecular machine made up of a million atoms — that makes DNA come to life, turning our genetic code into proteins and therefore into us. *Gene Machine* is an insider account of the race for the structure of the ribosome, a fundamental discovery that both advances our knowledge of all life and could lead to the development of better antibiotics against life-threatening diseases. But this is also a human story of Ramakrishnan's unlikely journey, from his first fumbling experiments in a biology lab to being the dark horse in a fierce competition with some of the world's best scientists. In the end, *Gene Machine* is a frank insider's account of the pursuit of high-stakes science.

Questions

1. Do you think the memoir genre of this book was effective? How did the book's genre influence what you took away from the overall story or the scientists and researchers who are mentioned?
2. What did you think about Ramakrishnan's decision to focus on uncovering the secrets of the ribosome after already earning a PhD in physics? What compelled him to change direction?
3. There are a few sections of the book where the technical details dominate the story. Did it help you better understand the ribosome and how it relates to DNA? Are there any quotes, passages, or scenes you found particularly challenging or illuminating?
4. Do you have a new perspective on scientific research because of reading this book?
5. Ramakrishnan discusses Nobel disease or pre-Nobelitis. How do you think the goal to win a Nobel Prize effects science discovery?
6. What do you think about the author's comment, "The Fact that Nobel Prizes can only be shared between three people… is increasingly embarrassing in an era when large research consortia work on problems, leaving many researchers unrecognized."?

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