ABOUT THE AUTHORS

Ray Kurzweil is one of the world's leading inventors, thinkers, and futurists. Called "the restless genius" by the Wall Street Journal and "the ultimate thinking machine" by Forbes magazine, Kurzweil's ideas on the future have been touted by his many fans, who range from Bill Gates to Bill Clinton. Time magazine writes, Photo by Michael Lunch "Kurzweil's eclectic career and



Courtesy of Kurzweil Technologies Inc.

propensity of combining science with practical-often humanitarian—applications have inspired comparisons with Thomas Edison." A recipient of the National Medal of Technology and an inductee in the National Inventors Hall of Fame, among many other honors, he is the author of three previous books: The Age of Spiritual Machines, The 10% Solution for a Healthy Life, and The Age of Intelligent Machines.

Terry Grossman, M.D., is the founder and medical director of Frontier Medical Institute in Denver, Colorado, a leading longevity clinic. Certified in antiaging medicine, he lectures internationally on longevity and antiaging strategies. In the words of Arline Brecher, coauthor of Forty Something Forever, "I've met good Photo by Larry Laszlo. writers and good doctors, but sel-



dom are they one and the same. Dr. Terry Grossman breaks the mold and sets a new standard for physicians." He is the author of The Baby Boomer's Guide to Living Forever.



Tn Fantastic Voyage, high-tech visionary Ray Kurzweil teams up with life-extension Lexpert Terry Grossman, M.D., to consider the awesome benefits to human health and longevity promised by the leading edge of medical science—and what you can do today to take full advantage of these startling advances. Citing extensive research findings that sound as radical as the most speculative science fiction, Kurzweil and Grossman offer a program designed to slow aging and disease processes to such a degree that you should be in good health and good spirits when the more extreme life-extending and life-enhancing technologies—now in development—become available. This bridge to the future will enable those who dare to make the journey from this century to the next . . . and beyond.

"Fantastic Voyage is truly breathtaking-a concise yet comprehensive journey that accurately recounts the past and present state of our collective knowledge in the diverse fields of biology, medicine, and information technology. Whether you are driven by intellectual curiosity or concern for your own personal wellness, you will find this book fascinating and educational. A must read."

-Dean Kamen, physicist and inventor of the first wearable insulin pump, HomeChoice portable dialysis machine, IBOT Mobility System, and Segway Human Transporter, and recipient of the National Medal of

"This visionary book provides a state-of-the-art synthesis of the latest evidence on aging and what you can do to live better and live longer. Highly recommended."

-Dean Ornish, M.D., developer of the Opening Your Heart program

"Fantastic Voyage gives us a wonderful and exciting vision of what new advances in the biological and physical sciences will bring to the health and quality of human life. Kurzweil and Grossman's program of simple lifestyle modifications to forestall chronic disease is so comprehensive that anyone can find easy-to-implement actions that will enhance their health."

-George King, M.D., Director of Research, Joslin Diabetes Center, and Professor of Medicine, Harvard

"A wake-up call to even the most health-conscious people, Fantastic Voyage boldly challenges conventional wisdom about aging and illness and offers groundbreaking solutions to remain young and healthy indefinitely."

-Iohn Gray, Ph.D., author of the Men Are from Mars, Women Are from Venus series of books









THE SCIENCE BEHIND RADICAL LIFE EXTENSION

FANTASTIC VOYAGE

LIVE LONG ENOUGH TO LIVE FOREVER

RAY KURZWEIL TERRY GROSSMAN M.D.

According to Kurzweil and coauthor Dr. Terry Grossman, we are in the early stages of multiple profound revolutions spawned by the intersection of biology, information science, and nanotechnology. With the decoding of the human genome, many new and powerful technologies are emerging: rational drug design (drugs designed for very precise missions, with little or no side effects), tissue engineering (regrowing our cells, tissues, and organs), reversal of aging processes, gene therapy (essentially reprogramming our genetic code), nanobots (robots the size of blood cells, built molecule by molecule and placed in our bodies and bloodstreams to enhance every aspect of our lives), and many others. Some of these transformations will bear fruit before the ink is dry on this book. As a result, many experts, including the authors, believe that within a decade we will be adding more than a year to human life expectancy every year thereafter.

"Whereas some of my contemporaries may be satisfied to

embrace aging gracefully as part of the cycle of life, that is not my

view. It may be 'natural,' but I don't see anything positive in los-

ing my mental agility, sensory acuity, physical limberness, sexual

desire, or any other human ability. I view disease and death at any

age as a calamity, as problems to be overcome." So writes Ray

Kurzweil in this brave new handbook to the human machine.

Bridging the gulf between life today and the distant future a fantastic voyage nearly all of us can take-will be made possible in three steps. Bridge One involves aggressively applying what we know now, sooner rather than later, to dramatically slow down the aging process. The authors describe how you can, in effect, reprogram your biochemistry to change the ancient programs in your genes. They provide guidance on which supplements will contribute to your health and enhance your vitality based on your particular situation. Bridge Two relies on advances in biotechnology that will allow you to directly intervene to stop disease and actually reverse aging. Finally, in a couple of decades, nanotechnology, Bridge Three, will enable us to vastly expand our physical and mental capabilities by directly interfacing our biological systems with human-created technologies.

With this book, Ray Kurzweil and Terry Grossman point out the way to something humans have only dreamed about until now-the promise of living forever. Readers who are up for the voyage are invited along.



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