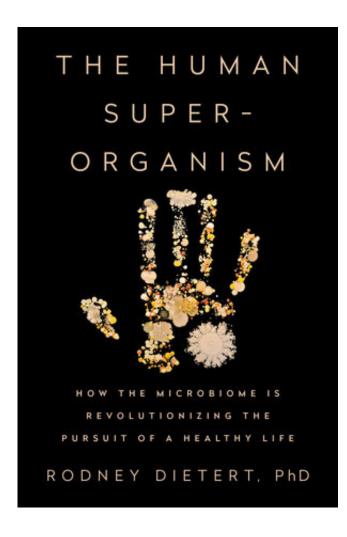


## Immunologist's book offers blueprint for medical revolution

July 12 2016, by Krishna Ramanujan



Rodney Dietert, Cornell professor of immunotoxicology, has penned a new book, "The Human Superorganism: How the Microbiome Is



Revolutionizing the Pursuit of a Healthy Life" (Dutton, 2016), that calls for a new paradigm in how we view public health and human biology.

In the book, Dietert challenges two fundamental concepts of human biology: that "humans are better off as pure organisms free of microbes" and that "the human (mammalian) genome is the most important biological factor in creating a better future for humans."

He argues that these principles are "misguided," yet they form the basis for our understanding of medical science.

The conventional paradigm of medicine against infectious disease has relied on antibiotics to fight off <u>pathogenic microbes</u> and vaccines to battle viruses. Dietert points out that these weapons made sense against the main killers of the 20th century, but they fail to stop the most significant global killers of today. Deadly diseases today are very different than they were 100 years ago, with the biggest current threats involving <u>noncommunicable diseases</u> including allergies, cancer, heart disease, obesity, diabetes, Alzheimer's disease and depression, he says. These diseases account for 63 percent of all human deaths but are not effectively treated with old-world cures of drugs, vaccines and antibiotics, he writes.

New research has shown that humans are made of thousands of microbial species; in fact a majority of our cells are actually friendly microbes, so treating disease with antibiotics also compromises our health. Today's noncommunicable diseases result from out-of-whack immune systems and chronic inflammation that causes illness; at the same time, balance to our immune systems is regulated by our microbiomes, the microbes that share our bodies, he writes.

Dietert describes a revolution in biology that looks at humans as more than just mammals, but as superorganisms that house many life forms.



Nutrition and medical treatments, therefore, must consider "the whole human," including physical, psychological and spiritual systems, he writes. He identifies nutrition and lifestyle choices that make up a roadmap for revolutionizing <u>public health</u>.

"We are becoming a race of disabled people," he writes. "This book offers an alternative."

Provided by Cornell University

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