

Veterinary and Human Toxicology

Book review of “*Microcompetition with Foreign DNA and the Origin of Chronic Disease*”

Author Hanan Polansky uses this book to present and discuss a theory. He raises the interesting possibility that we may soon be able to label chronic disease as the most important problem facing medicine, veterinary medicine and the allied health sciences. Perhaps carcinogenesis (today’s most important problem) is complemented by a larger series of chronic degenerative diseases. In fact, in Dr. Polansky’s eyes, the atherosclerosis that produces coronary artery disease (yesterday’s most important disease) and stroke, carcinogenesis and chronic degenerative diseases are biomedical problems of greatest note. When discussing instruction in higher education with professional colleagues, we think – but are not sure – that we know what will be required of tomorrow’s professional students. In reading this book, there arises a growing certainty, that tomorrow this theory’s knowledge will be required of today’s professional students. The book is hard to read, and even harder to understand. The equations, figures and references are beyond extensive, yet they support his assertion, as do many others that author Polansky did not cite in the area of allergic cardiopulmonary disease. There is the sense that this book needs to be read, because we could learn valuable lessons and gain valuable perspective. Enjoyment was irrelevant (and virtually nonexistent); however, it was nearly impossible to put it down! In an effort to learn more about the person who created this annoying but compelling document, 2 persons were found who had reviewed it for amazon.com, and they’d had reactions similar to my own – one liked it, one was frustrated by it! Having just finished the book, I’m glad to have stayed up late and finished it; however, it will be good to go back repeatedly to check other ideas against his theory. It will serve as a frustrating, compelling and necessary standard or window. This book’s quality is sufficient so I’m willing to recommend it highly. So that the potential reader can decide whether to accept the challenge of reading this book, let’s paraphrase Dr Polansky’s theory, with apologies to the author: Most chronic disease develop from the persistence of an overzealous defense. In the last several decades, we’ve had many clues, but little connected evidence as to why the defense is overzealous in some cases – cancer, atherosclerosis in coronary artery disease, diabetes, osteoarthritis, multiple sclerosis and recently , asthmas and obesity – but not in others where spontaneous recover takes place. Much debate has centered about these uncertainties (eg, does tobacco smoke cause chronic pulmonary degenerative disease and cancer?). Not surprisingly, we’ve had little idea of how to treat such chronic diseases, although, with much research, we know that some things help (eg, idiopathic pulmonary fibrosis is helped but not cured by corticosteroids). The theory parallels most accepted thinking in almost every aspect of chronic disease with which I’m familiar- eg, the transformation of pulmonary lymphocytes from thymocyte th1 (inflammatory) to th2 (allergenic) assures the development of asthmas. Dr. Polansky says the persistence engine that derives development of chronic disease is the microcompetition of foreign DNA. It’s difficult to decide if he is right, but that too is irrelevant! The intricate details we learn along the way about these diseases resemble each other, and most importantly, therapies that might tip the balance toward health are fascinating. The whole approach of tipping the balance

toward health will receive much more consideration by health care providers and researchers in future medicine and research. If most serious students try hard to understand Polansky's theory, we will view health and environment sciences in a whole new way. If most researchers whose work involves chronic diseases read this and work to understand it, we'll involuntarily begin to view and perhaps reshape our work through Dr Polansky's lenses. Perhaps the theory's greatest strength is that it will change how focused researchers in fields peripheral to this one view their data and seek connections to other workers' data. In all cases, it will make a valuable difference to the readers who persist to the theory's understanding. The author tells us that 6 years ago he left academia and was accorded the rare privilege of freedom to thinking in his "cave" for 6 years. He thanks his cavemate (wife) who was his safety net and particularly 2 individuals for their kindness in supporting him to make a difference. It is hard to see how much this theory will reshape our lives. On the chance that we may be seeing, inexactly, the face of future medicine, we should read the 543 pages of "Microcompetition with Foreign DNA and the Origin of Chronic Disease," by H Polansky, published by the Center for Biology of Chronic Disease, 3159 South Winton Road, Rochester, NY 14623, in 2003 and is available at amazon.com for \$109.99.

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