Happy Accidents: Serendipity in Modern Medical Breakthroughs

Morton A. Meyers
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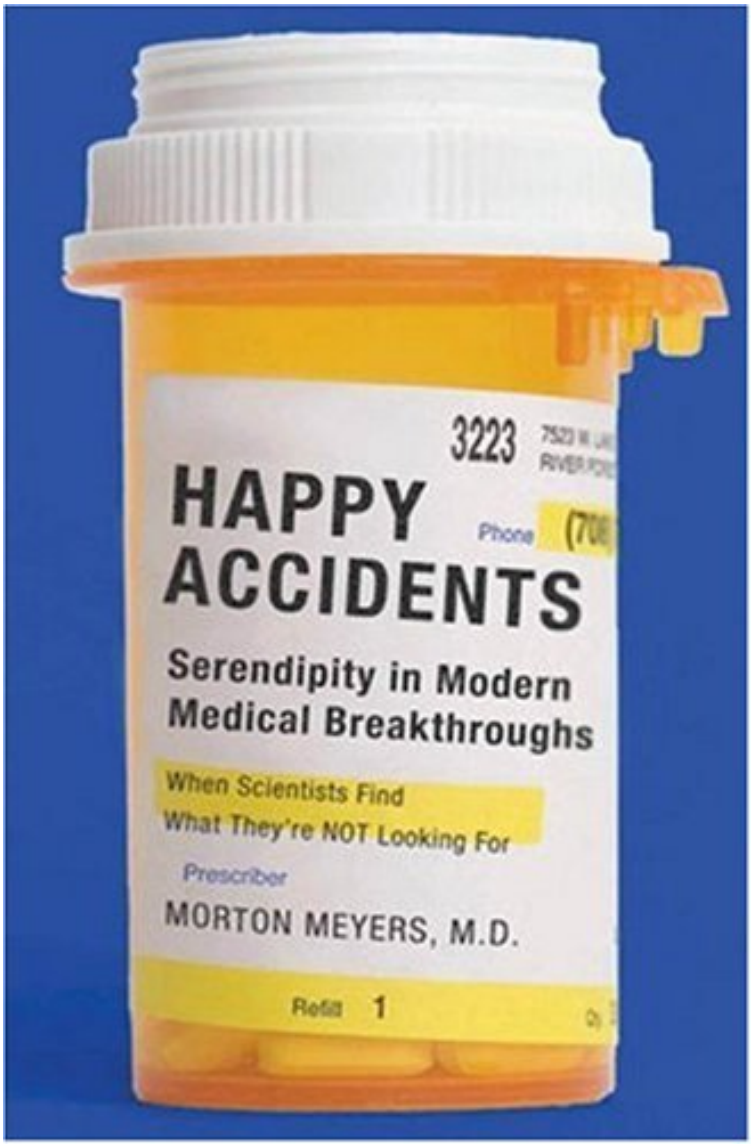

#1171814 in Books Arcade Publishing 2007-03-09Original language:EnglishPDF # 1 9.50 x 1.25 x 6.50l, 1.55 #File Name: 1559708190408 pagesGreat product! | File size: 38.Mb

Morton A. Meyers : Happy Accidents: Serendipity in Modern Medical Breakthroughs before purchasing it in order to gage whether or not it would be worth my time, and all praised Happy Accidents: Serendipity in Modern Medical Breakthroughs:

0 of 0 people found the following review helpful. Ancient historyBy puffinswanIf you consider "modern" to be 1920-1995 this is the book for you-but not for me. I was hoping for something with more current info and this is just a history book-and I already knew 99% of it. A real waste of money.0 of 0 people found the following review helpful.

Well Written Book, Many Examples of Serendipity in Medical DiscoveriesBy James A. MagnerI really enjoyed this book! The author, Morton Meyers is a physician who obviously loves this topic. I have been interested in the history of science and medicine for years, and I enjoyed informally "collecting" anecdotes about famous discoveries. I am a physician and 62 years old, so I have heard and "collected" a lot of anecdotes ---- but Dr. Meyers presents many new details of anecdotes, so I was surprised by the nuances that he was able to provide. He obviously has spent a lot of time preparing this book. Also, the accuracy is excellent, and the book is written in an entertaining style. The 25-page Introduction is a fascinating essay in and of itself. There follow four major parts of the book, with a 20 page well-written Conclusion section. There is a 3-page selected bibliography, and then a detailed index. The book covers at least 39 specific instances of serendipity in medicine, and several were ones about which I had previouly heard very little. So this book was a lot of fun and well worth the time. I have always been interested in use of anecdotes for educational purposes, and I was delighted years ago by Richard Feynman's books, such as "Surely You're Joking, Mr. Feynman." Walter Glatzer wrote a wonderful collection of short scientific anecdotes called "Eurekas and Euphorias" that also was very entertaining. I used this style of humorous and instructive anecdotes in my own autobiography, "Chess Juggler: Balancing Career, Family and Chess in the Modern World." A reader who is interested in "Happy Accidents" also would enjoy those other three books.0 of 0 people found the following review helpful. More more MORE!!By SertoriusHappy Accidents is the best book I've read this year. I eagerly devoured it in a couple of days. The book is basically a history of medicine in the twentieth century with a focus on the hypothesis that most of the important discoveries and advances have been the result of chance, serendipitous observations by researchers motivated primarily by scientific curiousity rather than review committee directed research and development. In developing this theme of serendipity, I presume that the author must have been inspired by the book Serendipity: Accidental Discoveries in Science by Royston Roberts, reviewed below(q.v.), a similar book published in 1989, also fascinating in similar vein. Happy Accidents is a fine complement to its predecessor because the earlier focused more on organic chemistry and dreary industrial processes, while Happy Accidents is the grand pageant of medicine in the twentieth century, as told in vivid detail and literary style by its author, a practioner of the same field as me--radiology! It's inspiring that radiologists can have such sparkling erudition, but not at all suprising. Happy Accidents surges forward with and anecdote-driven, lively style. The stories and histories are richly supported with footnotes and references, which provide a portal to further reading. Books referenced in the footnotes will probably supply much of my reading well into the next year. The author shines light into so many obscure corners of medical history, not covered in standard popular histories. I had considered myself quite a student of medical history, but Meyers shattered my illusions and expanded my knowledge by some fifty percent! And I agree with one of the other reviewers that this book should be a part of the medical curriculum for students. For me personally, the history of how different therapeutics were discovered and why they were developed when they were lends understanding more valuable than the voluminous registers of facts one is force fed in the modern medical curriculum. Meyers also weaves an interesting thread of cultural history into his narrative, when he closely examines the barbaric ages of lobotomies and electroconvulsive therapy. In true Stalinist style, these "treatments" were often used to punish dissenters and non-conformists under the malevolent guise of "therapy". Another story along these lines that I have read about was Lou Reed's "treatment" with electroconvulsive therapy for showing homosexual tendencies. Later, Meyers offers some shocking social history about the involuntary experiments with LSD performed on hundreds a Americans by the CIA under director Sidney Gottlieb. Great stuff. As to the basic premise of the book, the importance of serendipity cannot be denied, but I question whether this warrants a whole new outlook on the investigative process. A large number of discoveries and inventions (CT, MRI, ultrasound) have been the product of directed research and development. And some of the scenarios the author labels "serendipitous" seem more goal directed to me. For example, when Fleming discovered penicillin, he made a chance observation, but he WAS researching antibiosis, and he discovered antibiosis, albeit in a slightly unexpeced place. Otto Loewi's famous experiment proving the existence of chemical neurotransmitters was part of the natural sequence of the hypothesis forming/testing procedure started by Dale and his British colleagues. And sadly, I wonder whether serendipitous observation is a faculty that can be learned and developed, or whether it is an inborn trait like mathematical ability, which one either has or has not. Altogether, Happy Accidents is an entertaining, informative, thought provoking book that should be read by any physician or medical student. I was wishing the author would write more books in similar vein, but I aleady see that he has just published a new book, Prize Fight: The Race and the Rivalry to be the First in Science (Macsci), which I will download for my Kindle ASAP!

This is Morton Meyers' fascinating, entertaining, and highly accessible look at the surprising role serendipity played in some of the most important medical discoveries in the 20th century. Though within the scientific community a certain stigma is attached to chance discovery because it is wrongly seen as pure luck, happy accidents happen every day and Meyers shows how it takes intelligence, insight, and creativity to recognize a "Eureka! I found what I wasn't look for!" moment and know what to do next. Penicillin, chemotherapy drugs, X-rays, Valium, the Pap smear, and Viagra were all discovered accidentally, stumbled upon in search of something else. In discussing these medical breakthroughs and

others, Dr. Meyers makes a cogent, highly engaging argument for a more creative, rather than purely linear, approach to science.

From Publishers WeeklyMeyers, professor emeritus of radiology and internal medicine at SUNYStony Brook, has a simple message: the most significant breakthroughs in medical research usually came about when people were looking for something else entirely. Lithium's effect on bipolar disorder, for example, was discovered because a scientist was taking advantage of its solubility to run toxicity tests on patients. Likewise, Viagra was developed during experiments on medications designed to treat angina. Meyers has dozens of stories like this, in the areas of antibiotics, cancer treatments, cardiovascular therapy and antidepressants. The anecdotes are lively and filled with miniportraits of important doctors like Paul Ehrlich (who pioneered the use of chemistry to develop medical treatments) and Arthur Voorhees (who stumbled onto the treatment for abdominal aortic aneurysms), but some chapters feel forcefully wedged in. The role of accident in creating the thalidomide molecule is glossed in one sentence, and too little information is given about contemporary research into the therapeutic use of LSD to draw any meaningful conclusions (although it's a good excuse to revisit the story of Albert Hofmann's bicycle ride). But it will be hard to argue with Meyers's criticism of a rigid scientific culture that discourages experimenters from keeping an eye out for the unexpected. (Apr.) From BooklistTo radiologist and internist Meyers, the phrase creative scientific research has become an oxymoron in today's culture of research grants, peer review boards, pharmaceutical companies, overly regimented education, and scientific journals. Rebuffing all that, he details dozens of medicines currently saving millions of lives that are the results of serendipity, which he defines as "chance plus judgment"--medicines discovered while researchers were looking in quite another, often the opposite, direction. To be serendipitous, he says, a chance discovery must be accompanied by the researcher's "ability to recognize an important anomaly or to draw analogies that are not obvious." Creativity is key. In interviews with several Nobel laureates, many readily admit applying so-called post facto logic to the sequence of their reasoning when they make their presentations because, Meyers notes, getting to a new idea is not a linear process. Meyers' accounts of such happy accidents as the discoveries of the lifesaving anticoagulant Coumadin, the manic-depression therapeutic lithium, and others is a significant brief on creativity's critical role in medical research. Donna ChavezAbout the AuthorMorton Meyers is emeritus professor and chairman of radiology and emeritus professor of internal medicine in the School of Medicine of the State University of New York (SUNY) at Stony Brook. He lives in East Setauket, NY.