Computational Toxicology: Methods and Applications for Risk Assessment

From Bruce A Fowler
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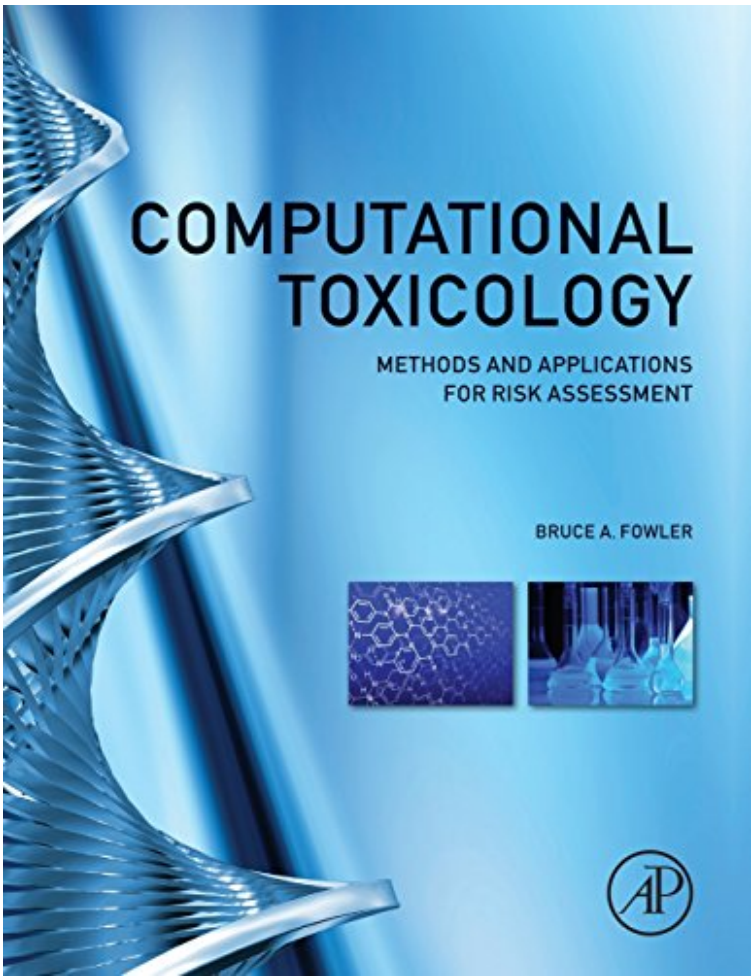

#3950999 in Books Bruce A Fowler 2013-07-10Original language:EnglishPDF # 1 9.25 x .69 x 7.52l, .0 #File Name: 012396461X274 pagesComputational Toxicology | File size: 60.Mb

From Bruce A Fowler : Computational Toxicology: Methods and Applications for Risk Assessment before purchasing it in order to gage whether or not it would be worth my time, and all praised Computational Toxicology: Methods and Applications for Risk Assessment:

1 of 1 people found the following review helpful. very beneficial and helpful toolBy Hosier factI liked the way this book is organized, it takes many aspects to discuss but not much details, I mean it doesn't teach you how to model your data, you better find that in original articles.

Computational Toxicology: Methods and Applications for Risk Assessment is an essential reference on the translation of computational toxicology data into information that can be used for more informed risk assessment decision-making. This book is authored by leading international investigators who have real-world experience in relating

computational toxicology methods to risk assessment. Key topics of interest include QSAR modeling, chemical mixtures, applications to metabolomic and metabonomic data sets, toxicogenomic analyses, applications to REACH informational strategies and much more. The examples provided in this book are based on cutting-edge technologies and set out to stimulate the further development of this promising field to offer rapid, better and more cost-effective answers to major public health concerns.Authored by leading international researchers engaged in cutting-edge applications of computational methods for translating complex toxicological data sets into useful risk assessment informationIncorporates real-world examples of how computational toxicological methods have been applied to advance the science of risk assessment Provides the framework necessary for new technologies and fosters common vocabularies and principles upon which the effects of new chemical entities should be compared

"Computational Toxicology is big and it is clever!...The book is easy to read with a wealth of easy to follow figures and an abundance of referencesit offers readers a good perspective of what is currently achievable with computational toxicology and what is on the horizon. This book certainly has a place in most libraries."--btsNews, June 2014 "This collection reviews the state of the science in computer models for assessing human risk from chemical exposure and identifies specific applications that have enhanced the response to a defined risk assessment challengePractical translation of computational methods for risk assessment, computational translation and integration of test data to meet risk assessment goals, and computational translation of data from nonmammalian species are also discussed."--ProtoView.com, February 2014 "ICF International experts authored this essential reference on the translation of computational toxicology data into information that can be used for more informed risk-assessment decision making. The book provides an updated summary of the state-of-the-art science in the field of computational toxicology methods and offers examples of applications to risk assessment."--ICF International online, 2013 "This collection reviews the state of the science in computer models for assessing human risk from chemical exposure and identifies specific applications that have enhanced the response to a defined risk assessment challenge. The 11 contributions describe physiologically based pharmacokineticmodels for simulating dose metrics in sensitive subpopulations, a dynamic systems model of rat liver homeostasis, the quantitative structure-activity relationship tool for simulating necessary endpoints, and omics biomarker discovery."--Reference Research Book News, December 2013 The new book on Computational Toxicology edited by Dr. Bruce Fowler is a timely publication. It presents, in a well-organized and concise manner, a collection of excellent chapters on the methods and practical applications of computational toxicology. This is a very useful reference volume, but can be read cover-to-cover by those of us who want a general and current understanding of computational toxicology.--James C. Lamb, IV, Ph.D, DABT, ATS Principal Scientists and Center Director Center for Toxicology and Mechanistic Biology ExponentAbout the AuthorDr. Fowler began his scientific career at the National Institute of Environmental Health Sciences prior to becoming Director of the University of Maryland System-wide Program in Toxicology and Professor at the University of Maryland School of Medicine. He then served as Associate Director for Science in the Division of Toxicology and Environmental Medicine at Agency for Toxic Substances and Disease Registry (ATSDR). He is currently a private consultant and Co-owner of Toxicology Risk Assessment Consulting Services (TRACS), LLC. In addition, Dr. Fowler serves as an Adjunct Professor, Emory University Rollins School of Public Health and Presidents Professor of Biomedical Sciences, Center for Alaska Native Health Research (CANHR) at the University of Alaska- Fairbanks. Dr. Fowler, is an internationally recognized expert on the toxicology of metals and has served on a number of State, National and International Committees in his areas of expertise. These include the Maryland Governors Council on Toxic Substances (Chair), various National Academy of Sciences / National Research Council Committees, the USEPA Science Advisory Board and Fulbright Scholarship review committee for Scandinavia (Chair, 2000-2001).). In 2016, he became an Inaugural Member of the Fulbright 1946 Society. He has also served as a temporary advisor to the World Health Organization (WHO) and the International Agency for Research Against Cancer (IARC) for a number of toxicology and risk assessment issues and has been recently appointed as a member of the Joint FAO/WHO Expert Committee on Food Additives (JECFA) for the period 2016-2020. Dr. Fowler has been honored as a Fellow of the Japanese Society for the Promotion of Science (JSPS), a Fulbright Scholar and Swedish Medical Research Council Visiting Professor at the Karolinska Institute, Stockholm, Sweden and elected as a Fellow of the Academy of Toxicological Sciences. His more recent awards include a CDC/ATSDR, Honor Award for Excellence in Leadership Award 2010, The USP Toxicology Committee 2010-2015. The USP Elemental Impurities Panel and the 2014 U.S. Pharmacopea Award for an Innovative Response to Public Health Challenges (Group Award). He was appointed to the USP Nanotechnology Subcommittee in 2015- .Dr. Fowler was previously elected to the Council of the Society of Toxicology (2005-2007), the Board of Directors of the Academy of Toxicological Sciences (2006-2009), and more recently, to the Council of the Society for Risk Analysis (2014-2017He is the Federal Legislative and National Active and Retired Federal Employees Association (NARFE)-PAC Chair for the Rockville Maryland Chapter of NARFE. Dr. Fowler is the current President of the Rotary Club of North Bethesda, Maryland (2016-2017) and was selected as Rotarian of the Year in 2015 for his work in developing a taxi-based program to help persons with disabilities gain independence via reliable transportation to work. Dr. Fowler is the author of over 260 research papers and book

chapters dealing with molecular mechanisms of metal toxicity, molecular biomarkers for early detection of metal-induced cell injury and application of computational toxicology for risk assessment. He has been the editor, co-editor or author of 8 books or monographs on metal toxicology and mechanisms of chemical - induced cell injury, molecular biomarkers and risk assessment and computational toxicology. Dr. Fowler is currently focused on the global problem of electronic waste in developing countries. He serves on the editorial boards of a number of scientific journals in toxicology and is an Associate Editor of the journal Toxicology and Applied Pharmacology and a past Associate Editor of Environmental Health Perspectives (2007-2016).