

BOOK REVIEW**“ENVIRONMENTAL HEALTH CRITERIA 233:
TRANSGENIC ANIMAL MUTAGENICITY ASSAYS”**

Publisher: WHO Press

Published in 2006

323 pages

Retail price: USD 45.00 [For developing countries, USD 31.50]

Website: www.who.int/bookorders

ISBN: 92 4 157233 7 / 978 92 4 157233 0

This monograph is the first draft on environmental health criteria (EHC) for transgenic animal mutagenicity testing, published under the joint sponsorship of the United Nations Environment Programme, the International Labour Organization and the World Health Organization for International Programme on Chemical Safety (IPCS). This monograph was peer-reviewed internationally and finalised by an EHC Task Group. It may assist national authorities in making risk assessments and subsequent risk management decisions.

This monograph, which is structured systematically with abbreviations, glossary, summary and chapters, describes the transgenic mutagenicity and its role in toxicology testing and mechanistic research. Specifically, it gives a brief overview of *in vivo* genotoxicity testing, transgenic mutation assays and chemicals tested using the lacI and its lacZ rodent models. It also emphasises the potential value of transgenic mutation assays in toxicology and risk assessments. However, this monograph does not critically evaluate the toxicity of mutagenicity assays. Finally, it is recommended that Organization for Economic Co-operation and Development (OECD) guidelines be developed for these assays, which should be included in the IPCS qualitative scheme for mutagenicity and all other testing strategies. Internationally-approved protocol may form the basis for such guidelines, which would play a critical role in regulating biomedical research.

Although the scope of this monograph is to provide critical reviews on the effect of chemical, physical and biological agents on human health and environment, it turned out to be a handbook of lab protocols for mutagenicity assays. It did not critically evaluate the potential human health risks, which may be caused by mutagenicity assays. In some sections, the language could have been improved in order to deliver the scope of the monograph clearly. Tables listing substances that exhibit carcinogenic and genotoxic effects in target organs could be simplified for better and easy reference.

This book is reasonably priced for international standards. However, further discount or a cheaper edition may be required for the developing countries.

S Thameem Dheen, PhD

Department of Anatomy

National University of Singapore

Yong Loo Lin School of Medicine

4 Medical Drive

Singapore 117597

Email: antstd@nus.edu.sg