DESCRIPTION

This book describes how systems biology, pharmacogenomic and behavioral approaches, as applied to neurodevelopmental toxicology, provide a structure to arrange information in a biological model. Authors review and discuss approaches that can be used as effective tools to dissect mechanisms underlying pharmacological and toxicological phenomena associated with the exposure to drugs or environmental toxicants during development. This book presents cross-cutting research tools and animal models, along with applications to the studies associated with potential anesthetic-induced developmental neurotoxicity; the developmental basis of adolescent or adult onset of disease; risk assessment of methyl mercury and its effects on neurodevelopment; challenges in the field to identify environmental factors of relevance to autism; and the strategy and progress of epilepsy research.

ABOUT THE AUTHOR

Cheng Wang is Senior Neurobiologist in the Division of Neurotoxicology at the National Center for Toxicological Research, U.S. Food and Drug Administration. He is the author of over fifty-five peer-reviewed publications and book chapters. Dr. Wang was awarded the Outstanding Performance Award at the Society of Toxicology 44th Annual Meeting and the 2007 FDA Scientific Achievement Award for Excellence in Laboratory Science.
William Slikker, Jr., is the Director of the National Center for Toxicological Research, U.S. Food and Drug Administration. He has over 260 peer-reviewed scientific publications. Dr. Slikker has served as coeditor of several books and is an Associate Editor of the journals *NeuroToxicology* and *Toxicological Sciences*.

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