

## Robert B. Raffa, Ph.D.

Dr. Raffa is Adjunct Professor at the University of Arizona College of Pharmacy and Professor Emeritus at Temple University School of Pharmacy. He earned bachelor's degrees in Chemical Engineering and in Physiological Psychology (both from the University of Delaware), master's degrees in Biomedical Engineering (from Drexel University) and Toxicology (Thomas Jefferson University), and a doctorate in Pharmacology (Temple University School of Medicine). He was a Research Fellow and a Team Co-Leader for analgesics drug discovery at *Johnson & Johnson*, where he was pivotal in the elucidation of the mechanism of action and development of the analgesic drug tramadol (Ultram™). He is a cofounder of CaRafe Drug Innovation and Enalare Therapeutics, and is the CSO of Neumentum Inc, companies directed to the discovery and development of non-opioid analgesics and respiratory stimulants. He is co-holder of several patents, including combination of tramadol plus acetaminophen (Ultracet™). He has published more than 350 papers, and co-authored/edited several books on pharmacology and thermodynamics, and is a Co-Editor of *Journal of Clinical Pharmacy and Therapeutics* and *Journal of Pain Research*. He is a past president of the Mid-Atlantic Pharmacology Society of ASPET and is the recipient of research and teaching awards. He lectures and consults worldwide on pain pathways and analgesics.