

"Pharmacology is a unique science in that it defines the tools needed to convert observed drug behavior (which changes with organ type, physiology and pathology) to molecular indices of drug activity that are system independent. This is very important as drugs very rarely are discovered, tested and optimized in the therapeutic system but rather in a test system. Pharmacology is also the chemical control of Physiology, linking Physiology with Medicinal Chemistry; Physiology is how the system works, Pharmacology how to manipulate it for therapeutic advantage. The two disciplines are very different. In my capacity as an industrial pharmacologist (Burroughs-Wellcome 7 years; Glaxo Inc. 5 years; GlaxoWellcome 9 years ; GlaxoSmithKline 12 years) I ended up , at the request of management, teaching a course to new hires for 19 years simply because biologists without pharmacological training did not know how to interpret dose-response data from an integrated system; if these skills are lost then the turning tide of discovery moving away from the failed genomic paradigm back to the systems paradigm will find a gap in the people who need to run the science in the future of drug discovery."

Dr. Terry P. Kenakin

Principal Research Investigator, GlaxoSmithKline