The Use of Zebrafish and in Vivo PAL as a Novel Discovery Platform for Psychoactive Agents

Frederick Williams

University of Toledo, USA.

ABSTRACT

Our research is utilizing the zebrafish model to study molecular processes and animal models of human diseases. These studies discussed here start to assess how different bath salts and methamphetaminecause death upon overdose by addressing the molecules that may bind to the illicit drugs. We have accomplished this by developing an in vivo photo-affinity labelling (PAL) system and studying the drugs in our system. The zebrafish has been lauded as a unique and powerful tool to examine development in a vertebrate animal and address molecular aspects of human disease for decades. We will examine recent published data from our laboratory utilizing the PAL system we developed.