Title: Systems Biology & Mode of Action Based Risk Assessment.

Stephen W. Edwards

National Health and Environmental Effects Research Laboratory, US EPA, RTP, NC

Abstract: The application of systems biology for risk assessment of environmental chemicals is a natural extension of its use in pharmaceutical research. The basis for this is the concept of a key event network that builds on existing mode of action frameworks for risk assessment. The application of molecular networks derived from gene expression data for characterization of disruption of the hypothalamic-pituitary-gonadal axis in fish will be presented. This abstract does not necessarily reflect the view of the Environmental Protection Agency.