Stephen Edwards, Clemens Wittwehr, Hristo Aladjov, Edward Perkins, Natalia Garcia-Reyero, Gerald Ankley, David Lyons, Tanwir Habib, Joop DeKnecht, Sharon Munn, Briggitte Landesmann, Maurice Whelan, Kevin Crofton, Daniel Villeneuve

The Adverse Outcome Pathways Knowledge Base

The rapid advancement of the Adverse Outcome Pathway (AOP) framework has been paralleled by the development of tools to store, analyse, and explore AOPs. The AOP Knowledge Base (AOP-KB) project has brought three independently developed platforms (Effectopedia, AOP-Wiki, and AOP-Xplorer) together so the users can benefit from an internationally-harmonized, shared knowledge base. While conceptually similar, the three systems have different emphases relative to the types of information they capture and display. AOP-Wiki takes a text-based approach and provides a system that organises the available knowledge into discrete pages representing key components of an AOP and facilitates efficient assembly of weight of evidence supporting individual pathways. The AOP-Xplorer tool intends to extract the structured information defining relationships between molecular initiating events, key events, and adverse outcomes, as well as the connectivity of those components and represents them graphically, as a means to visualize and analyze AOP networks. Effectopedia, while having some similar capabilities, has been designed as a modelling environment that captures a semantic description of qualitative knowledge, computational models and algorithms, and supporting data to facilitate quantitative AOP applications. All three tools are being connected via a web-services hub which enables sharing of AOP information across the three platforms. This presentation will provide up to date information regarding the status of AOP-KB development and encourage use of the AOP-KB as a harmonized platform for the assembly and use of AOP knowledge. *The contents of this abstract do not necessarily represent the views or policies of the organizations with which the authors are affiliated.*