

Case study of read-across predictions using a Generalized Read-Across (GenRA) Approach

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We developed the Generalized Read-Across (GenRA) approach to facilitate automated, algorithmic read-across predictions. GenRA uses in vitro bioactivity data in conjunction with chemical information to predict up to 574 different apical outcomes from repeat-dose toxicity studies. Here, we use a case-study approach to characterize GenRA read-across predictions for a group of reference chemicals. We highlight examples where physicochemical parameters such as LogKow are helpful in refining the read-across predictions. These efforts demonstrate the utility of automated approaches for chemical analogue selection using algorithmic read-across approaches.

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