# Exploring Current Read-across Applications and Needs Among U.S. Federal Agencies

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U.S. Federal agencies are tasked with protecting human health and the environment by determining the potential health hazards posed by chemicals in the environment and consumer products. Testing all such substances using traditional animal-based methods poses significant practical time, cost and ethical challenges. With this in mind, the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) has released a strategic roadmap for establishing new approaches and methodologies to evaluate the safety of chemicals. Read-across is one such alternative method for filling data gaps in the hazard profile of a substance of interest using existing data from chemical analogs. In addition to providing information quickly and without the use of additional animal experiments, read-across can be tailored for use by different federal agencies. To understand the current state of the science and move towards harmonization of read-across approaches among federal agencies, a workgroup to address these issues was established by ICCVAM. The ICCVAM Read-Across Workgroup is tasked with understanding the current applications and tools used, the needs and decision contexts, and the challenges that remain for acceptance and implementation of read-across. We present an overview of federal agencies' read-across uses through two case studies that illustrate how decision contexts affect the application of read-across technique. A common theme raised by several agencies, exemplified in the case studies, is the need for guidance on characterizing the scientific confidence of a read-across prediction.
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