Accelerating the acceptance of next-generation sciences and their application to regulatory risk assessment

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The path for incorporating new alternative methods and technologies into quantitative chemical risk assessment poses a diverse set of scientific challenges. Some of these challenges include development of relevant and predictive test systems and computational models to integrate and extrapolate experimental data, and rapid characterization and acceptance of these systems and models. The series of presentations will highlight a collaborative effort between the U.S. Environmental Protection Agency (EPA) and the Agency for Science, Technology and Research (A*STAR) that is focused on developing and applying experimental and computational models for predicting chemical-induced liver and kidney toxicity, brain angiogenesis, and blood-brain-barrier formation. In addressing some of these challenges, the U.S. EPA and A*STAR collaboration will provide a glimpse of what chemical risk assessments could look like in the 21st century.