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Abstract for an invited talk at a SETAC Special Science Symposium on Endocrine Disrupting Chemicals to be held in Brussels (Belgium) October 23-25, 2012.

*Possible strategies for EDC testing in the future: exploring roles of pathway-based in silico, in vitro and in vivo methods.*

Current methods for screening, testing and monitoring endocrine-disrupting chemicals (EDCs) rely relatively substantially upon moderate- to long-term assays that can, in some instances, require significant numbers of animals. Recent developments in the areas of in vitro testing (e.g., high throughput technologies), in vitro/in vivo genomics, and computational biology (including bioinformatics) could provide the basis for efficiently detecting chemicals with the potential to perturb specific biological pathways within the hypothalamic-pituitary-gonadal and -thyroidal axes. These approaches, while not yet capable of wholly replacing longer-term whole-organism tests, nonetheless could fill roles related to screening/prioritization of large numbers of test chemicals for endocrine activities, or rapid broad-scale environmental monitoring of EDCs. This presentation will explore some of the newer technologies being considered for EDC testing and monitoring, including their potential advantages and drawbacks.