Impact of Phytoestrogens on Susceptibility to Synthetic Endocrine-Active Compounds

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While human exposure to dietary phytoestrogens has raised great interest in general, the effects of these substances on human susceptibility to additional environmental factors, such as synthetic endocrine-active chemicals, are not well understood. Also not clear is the influence of phytoestrogens in the diets of experimental animals on the outcomes of toxicological studies, particularly those studies testing endocrine toxicities at low doses. As such, the level of phytoestrogens in human and animal diets constitutes a major source of uncertainty in the assessment of health risk associated with environmental exposure to endocrine-active compounds. This LRI-funded project sought to evaluate the interactions of genistein, a prevalent phytoestrogen, with synthetic compounds to define developmental sensitivity and dose-response relationships in terms of how genistein may alter the body’s responses to estrogenic and antiandrogenic compounds. Our goals were to develop data that will help identify susceptible stages in development and to describe modes of interactions between genistein and prototypical endocrine-active agents. The research conducted in this project will enable us to gain a better understanding of the contribution that phytoestrogens may make in defining the susceptibility of developing individuals to endocrine-active substances.

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Presentation(s):


You, L. (2003). Impact of phytoestrogens on the susceptibility to synthetic endocrine-active compounds;


You, L. (2000). Research issues in environmental endocrine disruption. Invited presentation at Institute of Pharmacology and Toxicology, Beijing, China, April 17, 2000. (Also presented at Department of Preventive Medicine, The Third Medical University, Chongqing, China, April 26, 2000).

You, L. (2000). Endocrine active compounds and male reproductive health. Invited presentation at National Institute for the Control of Pharmaceutical and Biological Products, State Drug Administration, Beijing, China, April 18, 2000. (Also presented at National Institute for the Control of Pharmaceutical and Biological Products, State Drug Administration, Beijing, China, April 24, 2000).


Peer-reviewed publications:


This abstract was prepared by the principal investigator for the project. Please see www.USLRI.org for more information about the LRI.


Other publication(s):


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