



NCTR Quarter Page

December 2007

NCTR's New Associate Director for Regulatory Activities

NCTR welcomes Margaret "Peggy" Miller, Ph.D., as NCTR's Associate Director for Regulatory Activities (ADRA) as of September 30, 2007. As ADRA, Dr. Miller is responsible for facilitating the awareness of NCTR research activities by other Agency components, identifying FDA research needs, strengthening the communication interactions and collaborations between NCTR and other FDA product Centers, proactively creating interactions and interdisciplinary collaborative research endeavors that expand and strengthen the Agency's science foundation, and fostering the use of research results in the FDA regulatory decision making process.



Margaret "Peggy" Miller, Ph.D.

Dr. Miller has been with the FDA since 1989 serving in positions of responsibility ranging from the Deputy Director for Human Food Safety at the Center for Veterinary Medicine to the Manager of Science Programs in the Office of Women's Health. She recently completed a two-year detail at the World Health Organization, where she worked on building the International Food Safety Authorities Network (INFOSAN) network and developing consumer-information materials.

Toxicogenomics and Environmental Genomics Through Bioinformatics

NCTR, National Institute of Environmental Health Sciences/National Institutes of Health, and North Carolina State University recently hosted the first International Conference on *Toxicogenomics Integrated with Environmental Sciences* (TIES) in Raleigh, North Carolina, with the emphasis on application of bioinformatics in the fields of toxicogenomics and environmental genomics. The International Conference on TIES provided a venue where scientists with diverse backgrounds could discuss the current advances in bioinformatics technologies that explain biological mechanisms and pathways.

The conference featured four keynote speakers, invited presentations, and a poster session, as well as a special session on the FDA-led MicroArray Quality Control (MAQC) project. Dr. William Slikker, NCTR's Director, opened the conference with remarks on the current status of toxicogenomics applied in environmental sciences across agencies and across the globe. Other speakers from NCTR included Nan Mei (Applications of Toxicogenomics in Studying Environmental Mutagens), Xiaohui Fan (Investigation of Reproducibility of Differentially Expressed Genes in DNA Microarrays Through Statistical Simulation), and Weida Tong (An Overview of MAQC). International participants included the keynote speaker from Germany, the platform presenter from Korea, and the program committee members from China.

Highly Cited Publication

NCTR has been notified that one of its publications, "Structure-Activity Relationships for a Large Diverse Set of Natural, Synthetic, and Environmental Estrogens," published in *Chemical Research in Toxicology* (14(3):280-294) is being featured as a **highly cited paper** on the American Chemical Society's (ACS) publications website (http://pubs.acs.org/journals/crtoec/promo/most/highly_cited/2007/oct.html). Highly cited papers are those in the top 1% of the most-cited papers during the last 10 years. The article's authors include Hong Fang, Weida Tong, Leming Shi, R.M. Blair, Roger Perkins, William Branham, Bruce Hass, Q. Xie, Stacey Dial, Carrie Moland, and Daniel Sheehan.

NCTR—First FDA Facility to Implement ESHMS

The Jefferson Labs, composed of NCTR and the Office of Regulatory Affairs' Arkansas Regional Lab, has become the first FDA facility to implement an Environment, Safety and Health Management System (ESHMS) in accordance with national and international guidelines and standards and to fulfill the directives of Executive Order 13423.

The Jefferson Labs ESHMS incorporates a continuous quality-improvement plan and allows Jefferson Labs to strategically address environment safety and health matters.

Publications Recently Accepted in Nationally Recognized Scientific Journals

- Bendre, S.V., Shaddock, J.G., Dobrovolsky, V.N., Albertini, R.J. and Heflich, R.H., Effect of chronic azathioprine treatment on germ-line transmission of *Hprt* mutation in mice, *Environmental Molecular Mutagenesis*.
- Esperandi, P., Miller, T.J., Zhang, J., Schnackenberg, L., Knapton, A., Herman, E.H., Weaver, J., Beger, R. and Hanig, J., Age-related differences in susceptibility to toxic effects of valproic acid in rats, *Journal of Applied Toxicology*.
- Foley, S.L., Lynne, A.M. and Nayak, R.R., *Salmonella* challenges: prevalence in swine and poultry and potential pathogenicity of such isolates, *Journal of Animal Science*.
- Gamboa Da Costa, G., Marques, M.M., Fu, X., Churchwell, M.I., Wang, Y., Doerge, D.R. and Beland, F.A., (2007), Effect of N,N-didesmethyltamoxifen upon DNA adduct formation by tamoxifen and alpha-hydroxytamoxifen, *Cancer Letters*.
- Garey, J.D. and Paule, M.G., Effects of chronic low-dose acrylamide exposure on progressive ratio performance in adolescent rats, *Neurotoxicology*.
- Goodacre, R., Baker, D.G., Beger, R., Bessant, C., Broadhurst, D., Connor, S., Capuani, G., Craig, A., Ebbels, T., Kell, D.B., Kristal, B.S., Manetti, C., Newton, J., Paternostro, G., Somorjai, R., Sjoström, M., Smilde, A., Trygg, J. and Wulfert, F., (2007), Proposed minimum reporting standards for data analysis in metabolomics, *Metabolomics*, 3(3):231-241.
- Harper, S.B., Dertinger, S.D., Bishop, M.E., Lynch, A.M., Lorenzo, M., Saylor, M. and MacGregor, J.T., Flow cytometric analysis of micronuclei in peripheral blood reticulocytes III. An efficient method of monitoring chromosomal damage in the beagle dog, *Toxicological Sciences*.
- Hotchkiss, C.E., Wang, C. and Slikker, W., (2007), The effect of prolonged ketamine exposure on cardiovascular physiology in pregnant and infant rhesus monkeys, *Journal of the American Association for Laboratory Animal Science*.
- Ju, Y.H., Doerge, D.R. and Helferich, W.G., Avlimil, a dietary supplement for female sexual dysfunction, stimulates the growth of estrogen-dependent breast tumors (MCF-7) implanted in ovariectomized athymic nude mice, *Food and Chemical Toxicology*, in press.
- Lewis, S.M. and Duffy, P.H., Neoplastic pathology in male Sprague-Dawley rats fed the AIN-93M purified diet *ad libitum* or at restricted intakes, *Nutrition Research*.
- Lushchak, V.I. and Bagnyukova, T.V., Hypoxia induces oxidative stress in tissues of a goby, the rotan *Perccottus glenii*, *Comparative and Biochemical Physiology*, in press.
- Mei, N., Hu, J., Churchwell, M.I., Guo, L., Moore, M., Doerge, D.R. and Chen, T., Genotoxic effects of acrylamide and glycidamide in mouse lymphoma cells, *Food and Chemical Toxicology*.
- Nawaz, M.S., Khan, A.A., Khan, S.A., Sung, K. and Steele, R.S., Isolation and characterization of tetracycline-resistant *Citrobacter* spp. from catfish, *Food Microbiology*.
- Pogribny, I.P., Rusyn, I. and Beland, F.A., (2007), Epigenetic aspects of genotoxic and non-genotoxic hepatocarcinogenesis: Studies in rodents, *Environmental Molecular Mutagenesis*, in press.
- Ponce, E.R., Khan, A.A., Cheng, C., Summige-West, C.V. and Cerniglia, C.E., Prevalence and Characterization of *Salmonella enterica* serovar Weltevreden from imported seafood, *Food Microbiology*.
- Portilla, D., Schnackenberg, L. and Beger, R., Metabolic approaches to novel biomarker development, Biomarkers and Renal Disease. In (Mitchell Rosner, M.D. & Mark Okusa, M.D.) Nova Publications, (Book Chapter).
- Portilla, D., Schnackenberg, L. and Beger, R., Metabolomics of acute kidney injury, *Seminars in Nephrology*.
- Schnackenberg, L. and Beger, R., The role of metabolic biomarkers in drug toxicity studies, *Toxicology Mechanisms and Methods*.
- Sumner, L.W., Amberg, A., Barrett, D., Beger, R., Beale, M.H., Daykin, C., Fan, T.W., Fiehn, O., Goodacre, R., Griffin, J.L., Hardy, N., Higashi, R., Kopka, J., Lindon, J.C., Lane, A.N., Marriott, P., Nicholls, A.W., Reilly, M.D. and Viant, M., (2007), Proposed minimum reporting standards for chemical analysis, *Metabolomics*, 3(3):211-221.
- Tolleson, W.H., Melanin and neuromelanin in the nervous system, Encyclopedic Reference of Neuroscience. In (John J. Haddad, Ph.D.), (Book Chapter).

CONTACT INFORMATION: THE *NCTR QUARTER PAGE* IS PUBLISHED FOUR TIMES A YEAR. FOR MORE INFORMATION ABOUT NCTR, CONTACT DR. WILLIAM SLIKKER, NCTR DIRECTOR, AT WILLIAM.SLIKKER@FDA.HHS.GOV OR [870] 543-7517.



DHHS/FDA/NCTR
3900 NCTR Road
Jefferson, AR 72079

ADDRESS CORRECTION REQUESTED