

The NIEHS Superfund Research Program & NCEH/ATSDR Office of Science present an exciting opportunity for you to...

- 1 Attend a seminar to update your environmental health expertise
- 2 Join the presenter for an informal lunch after the seminar
- 3 Meet with the presenter (one-on-one or in a small group) after lunch

Attend the Seminar

Listen for inspiration. Could this new research be used in your environmental public health program? Challenge the speaker in a lively question and answer session.

Employing Human Primary Leukocytes to Assess Immunotoxicity

Norbert Kaminski, PhD

Professor, Pharmacology and Toxicology
Director, MSU Superfund Research Center
Director, Center for Integrative Toxicology
Michigan State University



Date: Wednesday, June 25, 2014

Time: 10:00 – 11:30 am

Place: Chamblee, Building 106, Room 1B

Immunotoxicology is the study of how xenobiotics cause adverse effects on the immune system. Xenobiotics are substances foreign to the body, such as environmental (water, air, soil, food) contaminants, occupational toxics, drugs, dietary supplements, bioterrorism agents, and plant/animal/fungal toxins. A variety of government agencies (NTP, EPA, FDA) use or require immunotoxicity testing batteries to predict potential human health effects. Some of these tests even include quantitation of how particular chemicals affect the immune response to a vaccine. The field of immunotoxicology, like basic immunology, has relied on the mouse as its primary biological model for the past 35 years. For example, the National Toxicology Program developed and validated a comprehensive battery of immune function assays using mouse leukocytes.

Recent advances in technology have allowed isolation of highly pure leukocyte populations, miniaturization of assay conditions, and instrumentation that enables rapid, accurate, multi-parametric analysis of individual leukocytes requiring relatively small numbers of cells (i.e., flow cytometry). This has facilitated a gradual shift toward the use of human primary leukocytes in immunotoxicological investigations. There are advantages—especially for elucidating mode and mechanism of action—as well as challenges associated with the application of primary human leukocytes in immunotoxicological evaluations. This seminar will discuss the feasibility of establishing a battery of immune function assays using human primary cells analogous to those employed for the past 35 years in the mouse. Experimental results with known immunotoxicants will be shared, including 2,3,7,8-tetrachlorodibenzo-p-dioxins, benzo[a]pyrene-7,8-dihydrodiol-9,10-epoxide and arsenic.

Lunch with the Speaker

Join an informal conversation about how Dr. Kaminski's work connects to what we do. Share your environmental health experiences with him. He is very interested in hearing from you!

Date: Wednesday, June 25, 2014

Time: 11:30 – 1:00 pm

Place: Chamblee, Building 106, Cafeteria

Meet with the Speaker

Expand your network of environmental health colleagues by sharing your research needs. Get to know Dr. Kaminski better so you can consult him for advice in the future. Explore potential collaborations.

Make an advance appointment to meet with the speaker by contacting Olivia Harris at [770-488-0597](tel:770-488-0597) or OHarris@cdc.gov. 30 minute time slots available. Groups have preference.

Date: Wednesday, June 25, 2014

Time: 1:00 – 4:30 pm

Place: Chamblee campus (4770 Buford Highway, Atlanta, GA 30341)

Need inspiration on how Dr. Kaminski might help you? You might want to discuss his publications and laboratory projects:

- www.ncbi.nlm.nih.gov/pubmed?term=Kaminski%20NE%5BAuthor%5D&cmd=DetailsSearch
- cit.msu.edu/superfund/project1.html
- tools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=P42ES49110031

Invite Your Friends

Local partners outside CDC/ATSDR who wish to attend in person may contact OHarris@cdc.gov for security clearance (1 week notice for U.S. citizens; 3 weeks for non-citizens).

Web Participation

To include regional staff and partners, Live Meeting and teleconference details will be shared through the ATSDR State Cooperative Agreement Listserv 2 weeks before the event.