

**GTA SPRING MEETING**

Thursday, May 25, 1995  
Hotel DuPont  
Wilmington, Delaware

**DNA Damage, Cytotoxicity and the Maintenance of Genomic Integrity:  
New Mechanistic Insights and Implications for Genetic Toxicology**

- 8:15 AM Registration
- 8:40 AM Opening Remarks  
*John DeLuca, Ph.D., GTA President*
- 8:45 AM Introduction  
*Richard D. Storer, Ph.D.*
- 8:50 AM Keynote Address:  
p53 in the Cell Cycle and Cell Death after DNA Damage  
*Michael B. Kastan, M.D., Ph.D. Johns Hopkins University*
- 9:50 AM Coffee Break
- 10:20 AM Cell Death, DNA Damage and the Single Cell Assay  
*Raymond R. Tice, Ph.D. Integrated Laboratory Systems*
- 10:55 AM Differentiating Genotoxic, Necrotic and Apoptotic Responses in the *In Vitro* Alkaline  
Elution Rat Hepatocyte Assay  
*Richard D. Storer, Ph.D. Merck Research Laboratories*
- 11:30 AM Business Meeting
- 12:00 PM Lunch
- 1:00 PM Introduction to the Afternoon Session  
*Michael C. Elia, Ph.D. Astra Merck*
- 1:05 PM Characterization of a Ku-Like DNA End Binding Complex that may Function in  
Double-Strand Break Repair and/or Recombination  
*Thomas D. Stamato, Ph.D. Lanckenau Medical Research Center.*
- 1:45 PM Chemically-Induced Large Scale Mutations in Mammalian Cells  
*Donald Clive, Ph.D. Burroughs Wellcome*
- 2:30 PM Coffee Break
- 2:50 PM Altered p53 Status in Human and Mouse Lymphoblastoid Lines: Correlations with  
Radiation-Induced Mutation and Apoptosis  
*Howard L. Liber, Ph.D., Harvard School of Public Health*
- 3:30 PM Adjourn

### ABOUT THE SPRING MEETING

Recent advances in cancer research indicate that mutations in key DNA damage response and repair genes which predispose cells to genetic instability are critical changes in cancer initiation and progression. The aim of the spring GTA meeting is to explore the role that these genes may play in determining or modulating the effects of genotoxic and cytotoxic agents on two different types of genotoxicity endpoints, primary DNA damage measured as strand breakage and mutation induction in human lymphoblastoid and mouse lymphoma cell lines.

In the keynote address, Dr. Michael Kastan will describe recent advances in understanding the cellular response to DNA damage and the role of critical genes such as the p53 tumor suppressor gene, the growth arrest and DNA damage-inducible (*gadd*) genes and the Waf1/Cip1/SDU/p21 inhibitor of cyclin-dependent kinases in initiating cell cycle arrest or apoptosis. The remainder of the morning session will be devoted to DNA strand break assays (alkaline elution and the single cell or "Comet" assay) and understanding the relative contributions of primary genotoxicant-induced DNA damage versus cytotoxicity-induced DNA degradation (mediated by endonucleases activated in cells undergoing necrosis and/or apoptosis) to the endpoints measured in these assays.

The first speaker in the afternoon session will discuss the role of the Ku protein in DNA repair and V(D)J recombination. Illegitimate activity of a V(D)J recombinase has been implicated in mutation induction by chemical mutagens in human T-lymphocytes. The Ku protein, recently shown to be defective in a DNA double-strand break repair and V(D)J recombination defective radiosensitive CHO mutant, is a component of a DNA-dependent protein kinase which may function in an intracellular signaling pathway in response to DNA damage. Finally, recent work on the nature of the mutational events at the thymidine kinase (tk) locus in mouse lymphoma L5178Y large and small colony mutants will be presented along with data indicating a critical role for altered p53 status in mutation induction, survival and apoptosis in human lymphoblastoid and mouse lymphoma cells after DNA damage.

### DIRECTIONS

#### From the North

Interstate 95 to Exit 7A - Delaware Ave., Rt. 52. Exit onto 11th St. (Rt. 52). Follow signs to Business District; Hotel DuPont is at the 4th light on the right hand corner of 11th and Market streets.

#### From the South

Interstate 95 to Exit 7 - Delaware Ave., Rt. 52. At 3rd light, turn rt. onto 11th St. (Rt. 52). Follow signs to Business District; Hotel DuPont is at the 4th light on the right hand corner of 11th and Market streets.

### ACCOMMODATIONS

#### Hotel DuPont:

A block of rooms has been reserved for the evening of May 24, 1995 at a rate of \$148.00 (single or double occupancy). Reservations must be made on or before April 24, 1995. Availability cannot be guaranteed after that date. Call (302) 594-3125 for reservations and refer to group number GENET-1031.

#### Holiday Inn, 700 King Street:

A block of rooms has been reserved for the evening of May 24, 1995 at a rate of \$79.00 (single or double occupancy) and includes a continental breakfast. Reservations must be made on or before May 10, 1995. Availability cannot be guaranteed after that date. Call (302) 655-0400 for reservations and refer to the Genetic Toxicology Association.

### REGISTRATION FORM

Name, Affiliation & Address:

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Amount Enclosed:

- ( ) \$30.00 Student Registration  
 ( ) \$50.00 Registration by 5/10/95  
 ( ) \$60.00 Late Registration  
 ( ) \$10.00 Dues Only

Phone \_\_\_\_\_ Fax: \_\_\_\_\_

Check here if address or phone number have changed.

TOTAL Enclosed \_\_\_\_\_

(Note: Registration does not include dues)

(Make checks payable to: Genetic Toxicology Association)

Detach and send this form to:

Robert Young  
 Treasurer, Genetic Toxicology Association  
 Microbiological Associates Inc.  
 9900 Blackwell Rd.  
 Rockville, Md. 20850-3349