Title and Site for International Hormesis Society's 2006 Annual Conference
June 6 – 8, 2006

HORMESIS 2006:
IMPLICATIONS FOR TOXICOLOGY, MEDICINE, AND RISK ASSESSMENT
University of Massachusetts, Amherst, MA US

Conference Coordinator
Denise Leonard, MSc

Registration Fees
Full Three Days: $399
Full Three Days for International Hormesis Society Members: $299
Government and Academic Rate: $199
Government and Academic Rate for International Hormesis Society Members: $149
Student Rate: $99
Student Rate for International Hormesis Society Members: $74

Award Recipient for "Outstanding New Researcher in the Field of Hormesis"
Instituted in 2007

Award Recipient for "Outstanding Senior Researcher in the Field of Hormesis"
Instituted in 2007

Platform Presentation: Plenary
Moderator: Paul Kostecki, University of Massachusetts, Amherst, MA

Phytochemical Hormesis
Mark P. Mattson, Laboratory of Neurosciences, National Institute on Aging Intramural Research Program, Baltimore, MD

Biphasic Dose-efficacy in Antiangiogenic Therapy
Judah Folkman, Children's Hospital Boston, Boston, MA

How Does the Concept of Adaptive Response In Radiation Relate to the Concept of Radiation Hormesis?
Ron Mitchel, Chalk River Laboratories, Chalk River, Ontario, Canada

Hormesis in Carcinogenesis: Evidence for a Threshold in Carcinogenicity of Non-Genotoxic Environmental Carcinogens
Shoji Fukushima, Osaka City University Medical School, Osaka, Japan

Platform Presentation: Radiation
Moderators: Bobby Scott, Lovelace Respiratory Research Institute, Albuquerque, NM Carmel Mothersill, McMaster University, Hamilton, Ontario, Canada

Protective Bystander Effects Following Low Dose Ionizing Radiation Exposure
Carmel Mothersill, M. Kilemade, W. Prestwich, Alicia O'Neill, Zhengfeng Liu, CB Seymour, McMaster University, Hamilton, Ontario, Canada

Adaptive Response in pKZ1 Mouse Prostate after Whole Body Exposure to Very Low X-Radiation Doses
Tanya Day, Gouxin Zeng, Antony M. Hooker, Flinders University and Medical Centre, Bedford Park, Australia Madhava Bhat, Adelaide Radiotherapy
Radiation-Induced Neoplastic Transformation In Vitro, Hormesis and Risk-Assessment
Leslie Redpath, University of California Irvine, Irvine, CA

Low Dose Radiation Exposure and Modulation of High Dose Effects on Embryogenesis and Heritable Mutations
Douglas R. Boreham, McMaster University, Hamilton, Ontario, Canada

Prolongation of Life Span of Disease Model Mice by Low Dose Rate Irradiation
Kazuo Sakai, Central Research Institute of Electric Power Industry, Tokyo, Japan

Biological System Response to Ionizing Radiation Invalidates the Linear-No-Threshold-Hypothesis
Ludwig F. Feinendegen, Brookhaven National Laboratory, Upton, NY and Heinrich-Heine-University, Dusselford, Germany

Smoking and Hormesis as Confounding Factors in Radiation Pulmonary Carcinogenesis
Charles L. Sanders, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea

Platform Presentation:
Toxicology

Moderator: James E. Klaunig, Indiana University of Medicine, Indianapolis, IN

Oxidative Stress: Dose Responses and Application to Hormesis
Lisa Kamendulus, Indiana University School of Medicine, Indianapolis, IN

Arsenic Induced Hormesis: Underlying Mechanisms and Timing
Elizabeth T Snow, Troy R Durham, Robert M Kozlovski, Peter Sykora, Deakin University, Burwood, VIC Australia

Unraveling the Mechanisms behind Hormesis in Plants
Lisa Kamendulus, Indiana University School of Medicine, Indianapolis, IN

Hormesis Model Dominates Threshold Model in Large Scale NCI Anti-tumor Drug Screening Data
Edward J. Calabrese, Edward J. Stanek III, John W. Staudenmayer, University of Massachusetts, Amherst, MA, George R. Hoffmann, Holy Cross College, Worcester, MA

Nonlinear Dose-Response Mechanisms –Simulation with Bio-Mathematical Models
Helmut Schöllnberger, University of Salzburg, Salzburg, Austria
Ronald E.J. Mitchell, Chalk River Laboratories, Chalk River, Ontario, Canada

Platform Presentation:
Practical Issues When Using Hormesis in Risk Assessment

Moderator: Mike Dourson, TERA, Cincinnati, OH

Risk Assessment and Recognizing Hormesis during Hazard Identification
Beth Doyle, EPA, Washington D.C.

Incorporating Mode of Action Understanding of Hormesis into Dose Response Assessment
Lynne T. Haber, Andrew Maier, Michael L. Dourson, Toxicology Excellence for Risk Assessment (TERA), Cincinnati, OH

Fluoridation as a Case Study in Hormesis
Chris DeRosa, ATSDR, Atlanta, GA

Meta-Hormesis for Uncertain Risks: Arsenic as a Case Study
Louis Anthony (Tony) Cox, Jr., Cox Associates, Denver, CO

Detailed Case Study of Hormesis for Radiation
Colin Seymour, McMaster University, Hamilton, Ontario, Canada
U-shape Symmetrical Risk Assessments on Long-Term Deficiency Diseases such as Aging and Cancer
Jaap Hanekamp, HAN, The Netherlands

Open and Panel Discussion on the Practical Issues of Using Hormesis in Risk-Assessment

Platform Presentation: Biomedical

Moderator: John Ives, Samuel Institute, Alexandria, VA

Memory Molecules and Hormones
John E. Morley, Susan A. Farr, Saint Louis University Health Sciences Center, St. Louis, MO

Biphasic Dose Response of Steroid Hormone Action
Roberta Diaz Brinton, University of Southern California, Los Angeles, CA

Role of Hormesis in Life Extension by Caloric Restriction
Edward Masoro University of Texas Health Science Center, San Antonio, TX

Hormesis, Control Theory, and Substance Use Disorders
David B. Newlin, RTI International, Baltimore, MD

Medical and Therapeutic Radiation Hormesis: Preventing and Curing Cancer
Bobby Scott, Jennifer Di Palma, Lovelace Respiratory Research Institute, Albuquerque, NM

Streptolysis O Enhances Keratinocyte Migration and Proliferation and Promotes Skin Organ Culture Wound Healing
Marjana Tomic-Canic, Hospital for Special Surgery, New York, NY


Three Mile Island: A Case for Why We Need Good History

Luncheon Speaker: Richard J. Pech
Director of Research at the Graduate School of Management, La Trobe University, Melbourne, Australia

Stress Response Mechanisms: From Single Cells to Multinational Organizations


The Media and Hormesis
Several Journalists who have published articles on hormesis in leading national publications discussed strategies, goals, and challenges when writing about controversial topics such as hormesis.

Poster Sessions (Partial List)
Contrasting Effects of LDR in Normal and Tumor Tissues
Lu Cai, University of Louisville School of Medicine, Louisville, KY

Empirical Models for Hormesis
Nina Cedergreen, The Royal Veterinary and Agricultural University, Taastrup, Denmark
Christian Ritz, The Royal Veterinary and Agricultural University, Frederiksberg, Denmark
Jens Carl Streibig, The Royal Veterinary and Agricultural University, Taastrup, Denmark

Identifying Non-linear Radiation Dose Responses In Vivo: Exploring Bystander Effects
Benjamin J. Blyth, Tanya K. Day, Pamela J. Sykes, Flinders University and Medical Centre, Bedford Park, South Australia

Expected Lives Saved due to Medical, Therapeutic, Environmental and other Forms of Radiation Hormesis
Jennifer Di Palma, Bobby R. Scott, Lovelace Respiratory Research Institute, Albuquerque, NM

Effects of Low Doses of Dietary Lead on Red Blood Cell Production in Three Successive Generations of Swiss Mice
Ivo Iavicoli, Giovanni Carelli, Catholic University of Sacred Heart, Rome, Italy

Hormesis as a Confounding Factor in Epidemiological Studies of Radiation Carcinogenesis
Charles L. Sanders, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea