# 2005 Conference Overview

<table>
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<tr>
<th>Title and Site for International Hormesis Society's 2005 Annual Conference</th>
<th>June 6 – 8, 2005</th>
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<tr>
<td><strong>HORMESIS 2005:</strong></td>
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<tr>
<td><strong>IMPLICATIONS FOR TOXICOLOGY, MEDICINE, AND RISK ASSESSMENT</strong></td>
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<td>University of Massachusetts, Amherst, MA US</td>
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| Conference Coordinator | Denise Leonard, MSc |

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<tr>
<th>Registration Fees</th>
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<tr>
<td>Full Three Days:</td>
<td>$399</td>
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<td>$399</td>
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<tr>
<td>Full Three Days for International Hormesis Society Members:</td>
<td>$299</td>
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<tr>
<td>$199</td>
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<td>Government and Academic Rate:</td>
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<td>$149</td>
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<td>$99</td>
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<tr>
<td>Student Rate:</td>
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<td>$74</td>
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<td>Student Rate for International Hormesis Society Members:</td>
<td>$74</td>
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| 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 |

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<tr>
<th>Platform Presentation: Plenary</th>
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<tr>
<td><strong>Moderator:</strong> Edward J. Calabrese, University of Massachusetts, Amherst</td>
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<td><strong>Hormesis in Precautionary Regulatory Culture: Models Preferences and the Advancement of Science</strong></td>
<td>Jaap C. Hanekamp, CEO HAN, Zoetermeer, The Netherlands</td>
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<tr>
<td><strong>Stochastic Thresholds: A Novel Explanation for Nonlinear Dose-Response</strong></td>
<td>Bobby Scott, Lovelace Respiratory Research Institute, Albuquerque, NM</td>
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<td><strong>The Risk Communication Challenge of Hormesis</strong></td>
<td>David Ropeik, Harvard University, Boston, MA</td>
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<tr>
<td><strong>The Emergence of Hormesis in Biology, Toxicology, and Medicine</strong></td>
<td>Edward Calabrese, University of Massachusetts, Amherst, MA</td>
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<th>Platform Presentation: Radiation</th>
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<tr>
<td><strong>Moderators:</strong> Bobby Scott, Lovelace Respiratory Research Institute, Albuquerque, NM, Pamela Sykes, Flinders University and Medical Centre, Bedford Park, South Australia, Australia</td>
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<tr>
<td><strong>Transitions in Biology and the Shape of Radiation Dose-Response Relationships</strong></td>
<td>Antone Brooks, Lezlie A. Couch, Washington State University TriCities, Richland, WA</td>
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<tr>
<td><strong>Complex Mutagenesis Dose-Response Relationships after Exposure of pKZ1 Mice to DNA Damaging Agents</strong></td>
<td>Pamela Sykes, Tanya K Day, Sarah Swinburne, Gouxin Zeng, Antony M. Hooker, Flinders University and Medical Centre, Bedford Park, South Australia, Australia</td>
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Mechanisms Underlying Ionizing Radiation-Induced Adaptive and Bystander Responses
Sonia M. de Toledo, Nesrin A. Asaad, Badri N. Pandey, Perumal Venkatachalam, New Jersey School of Medicine, Newark, NJ
Douglas R. Spitz, University of Iowa, Iowa City, IA
Roger W. Howell, Edouard I. Azzam, New Jersey School of Medicine, Newark, NJ

Adaptive Response and Bystander Effects in Human and Non-Human Biota
Carmel Mothersill, Colin Seymour, McMaster University, Hamilton, Ontario, Canada

Multicellular Responses to Ionizing Radiation
Mary Helen Barcellos-Hoff, Lawrence Berkeley National Laboratory, Berkeley, CA

Radiation Risk Prediction and Genetics: The Influence of the P53 Gene in vivo
Ron Mitchel, Atomic Energy of Canada Limited, Chalk River, ON, Canada

Suppression of Disease Development and Tumorigenesis by Low-Level Radiation
Kazuo Sakai, Central Research Institute of Electric Power Industry, Tokyo, Japan

Platform Presentation:
Hormesis in Aging Research and Interventions

Moderator: Suresh Rattan, University of Aarhus, Denmark

Hormetic Modulation of Aging and Longevity by Mild Heat Stress
Suresh Rattan, University of Aarhus, Denmark

The Hormetic Effects of Hypergravity on Longevity and Aging in the Fruit Fly Drosophila melanogaster
Nadege Minois, Institute of Molecular Biotechnology, Vienna, Austria

The Unexpected Anabolic Phenotype and Extended Longevity of Skin Fibroblasts after Chronic Glucocorticoid Excess
Harris Pratsinis, National Centre for Scientific Research "Demokritos", Athens, Greece, Stylianos Tsagarakis, OEvangelismosO Hospital, Athens, Greece
Irene Zervolea, Dimitri Stathakos, National Centre for Scientific Research "Demokritos", Athens, Greece
Nikos Thalassinos, OEvangelismosO Hospital, Athens, Greece
Dimitris Kletsas, National Centre for Scientific Research "Demokritos", Athens, Greece

Exercise Activation of Cellular Antioxidant Signaling Pathway
Li Li Ji, University of Wisconsin, Madison, WI
Maria-Carmen Gomez-Cabrera, Jose Vina, University of Valencia, Valencia, Spain

Hormesis and Regular Exercise in Aging: Possible Beneficial Effects of Oxidative Stress
Sataro Goto, Toho University, Chiba, Japan
Zsolt Radak, Semmelweis University, Hungary
Hisashi Naito, Juntendo University, Japan
Hae Young Chung, Pusan National University, Korea

Platform Presentation:
Toxicology

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

Effect of Low-Dose Radiation on Male Germ Cell Death
G-W Liu, S-L Gong, Jilin University, Changch, China
L Cai, University of Louisville, Louisville, KY

Examination of the Hormesis Response in the Microtox Bioassay as Induced by Binary Mixtures of Chemicals
Cecelia L Youngblood-Oswald, Weston Solutions Inc., Westchester, PA
Edwin E. Herricks, University of Illinois at Urbana-Champaign, Urbana, IL

Hormetic Mechanisms in Hepatocarcinogenesis
James E. Klaunig, Indiana University of Medicine, Indianapolis, IN

Hormetic Induction of Antioxidative and Antiapoptotic Proteins for cGMP-Mediated Adaptive Tolerance
C.C. Chiu, School of Pharmacy, Taipei Medical University, Taipei, Taiwan
Tsugunobu Andoh, Toyama Medical and Pharmaceutical University, Japan
P. Boon Chock, National Institute of Heart, Lung, and Blood Institute, Bethesda, MD
### Multiple Effects of Low Lead Levels in Swiss Mice

Ivo Iavicoli, Giovanni Carelli, Catholic University of Sacred Heart, Rome, Italy  
Edward J. Stanek III, University of Massachusetts, Amherst, MA  
Nicol. Castellino, Catholic University of Sacred Heart, Rome, Italy  
Edward J. Calabrese, University of Massachusetts, Amherst, MA

**Is Hormesis in Cellular Repair Mechanisms Induced by Water Disinfectant By-Products Harmful or Beneficial?**

Ahmed E. Ahmed, University of Texas Medical Branch, Galveston, TX

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<th>Platform Presentation: Risk Assessment</th>
<th>Moderator: Barbara Beck, Gradient Corporation, Cambridge, MA</th>
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| Low-Dose Dose-Response Nonlinearities as Adaptive Inventory Control Risk Management Strategies for Tissues | Louis Anthony Cox, Jr., Cox Associates and University of Colorado, Denver, CO  
Djangir Babayev, Cox Associates, Denver, CO |
| The Use of an Evidence-Based Approach for Evaluating the Concept of Hormesis | Philip S. Guzelian, University of Colorado, Englewood, CO |
| The Collision of Hormesis with Environmental Chemical and Natural Chemical Exposures: Opportunities and Challenges for Integrating | James S. Bus, Dow Chemical Company, Midland, MI |
| Hormesis into an Improved Understanding of Chemical Health Risks | Michael Dourson, TERA, Cincinnati, OH |
| The Hormetic Hypothesis and Its Risks Assessment Implications | Rory Conolly, CIIT Centers for Health Research, Research Triangle Park, NC |
| Implications of Homeostasis for Dose-Response at Different Levels of Biological Organization | |
| Risk Assessment Round Table Discussion: Should Hormesis be Considered in Risk Assessment and in Regulatory Decision-Making? | |

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<tr>
<th>Luncheon Speaker: Jonathan B. Wiener, J.D., Professor of Law, Duke University, Durham, NC</th>
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<td>Hormesis and Regulation</td>
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<th>Luncheon Speaker: Ralph Cook, M.D., RRC Consulting, LLC, Midland, MI</th>
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<td>Reflection on Hormesis</td>
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| Poster Sessions | Complex Low-Dose Dose-Response Nonlinearities and Abrupt Transitions: Insights from Cadmium Lung Carcinogenesis  
Louis Anthony (Tony) Cox, Jr., Cox Associates and University of Colorado, Denver, CO |
|-------------------------------------------------------------|
| Dynamics of Hormesis and of Inverse Hormesis for Cytotoxicity-Mediated Carcinogenesis  
Louis Anthony (Tony) Cox, Jr., Cox Associates and University of Colorado, Denver, CO |
| Ciprofloxacin-Induced Cytotoxicity in Primary Cultures of Rat Astrocytes and Protection by Vitamin E  
Aylin G. rbay, University of Hacettepe, Ankara, Turkey  
Brigitte Gonthier, Luc Barret, Universite Joseph Fourier, La Tronche, France  
Alain Favier, Universite Joseph Fourier, Cedex, France  
Filiz Hincal, University of Hacettepe, Ankara, Turkey |
| Monitoring Stormwater Toxicity: Hormesis in the Microtox Bioassay as an Indicator of Low Dose Effect  
Edwin E. Herricks, University of Illinois at Urbana-Champaign, Urbana, IL |
| Effects of Low-Level Exposures to X-Rays on the Antitumor Functions of Murine NK Cells  
Ewa M. Nowosielska, Aneta Cheda, Jolanta Wrembel-Wargocka. |
Effects of Low-Level Exposures to X-Rays on Anti-tumor Functions of Murine Peritoneal Macrophages
Ewa M. Nowosielska, Aneta Cheda, Jolanta Wrembel-Wargocka, Marek K. Janiak, Military Institute

The Health Effects of Different Radiations
S.H. Mong, J.T. Wu, J.M. Wu, H.J. Jen, Nuclear Biological and Chemical Protection Society, Taipei, Taiwan, ROC
W.L. Chen, National Yang-Ming University, Taipei, Taiwan, ROC
W.P. Deng, Taipei Medical University, Taipei, Taiwan, ROC
M.F. Wu, M.L. Shen, National Taiwan University, Taipei City, Taiwan 10764, ROC
C.P. Sun, National Chiao-Tung University, Hsin-Chu City, Taiwan, ROC

Effects of Diluted Low Molecular Mediators on Activity and Patterns of Fungal Phenol-degrading Enzymes
Elzbieta Malarczyk, Marzanna Pazdziech-Czochra, Anna Jarosz-Wilkolazka, Janina Kochmanska-Rdest, Aneta Grabarska, Anna Mieliczek, M. Curie-Sklodowska University, Lublin, Poland

Understanding the Hormetic Effect of Azadirachtin in an Insect System, Implications in Pest Management
Samindranath Mukherjee, Entomology Laboratory, National Chemical Laboratory (CSIR), Pune, Maharashtra, India

Valid Assessment of LDR Health Effects: Essential for Evaluating Radiological Risks
Theodore Rockwell, Radiation, Science & Health, Inc., Chevy Chase, MD

Radon Treatment Controversy
Zygmunt Zdrojewicz, MD, Akademia Medyczna (Medical School), Wroclaw, Poland
Jodi Strzelczyk, Ph.D., University of Colorado at Denver, Denver, CO

Adaptive Response in pKZ1 Mouse Prostate after Exposure to Very Low Doses of X-Radiation
Tanya K. Day, Gouxin Zeng, Antony M. Hooker, Flinders University and Medical Centre, Bedford Park, SA, Australia
Madhava Bhat, Royal Adelaide Hospital, Adelaide, SA, Australia
Pamela J. Sykes, Flinders University and Medical Centre, Bedford Park, SA, Australia

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