



Systems Biology of Human Aging Symposium  
Tuesday, December 8, 2009



The Biomedical Research Center, Baltimore, Maryland

8:15 a.m.	Registration and Morning Refreshments
8:45 a.m.	<i>Introductory Comments</i> Ashani Weeraratna, Ph.D. National Institute on Aging
	<i><u>Session 1: Networks and Models</u></i>
9:00 a.m.	<i>Using Graphical Representations of the Systems Biology of Aging</i> John D. Furber, M.S. Legendary Pharmaceuticals
9:30 a.m.	<i>Aging Versus Reliability: Stochastic Free-radical Modulations of the Genetic Program</i> Vitaly K. Koltover, Ph.D. Institute of Problems of Chemical Physics
10:00 a.m.	<i>A Network Perspective on the Biology of Aging</i> Daniel Promislow, Ph.D. University of Georgia
10:30 a.m.	Morning Break
	<i><u>Session 1: Networks and Models (continued)</u></i>
10:45 a.m.	<i>Simplist's Approach to Modelling Human Aging</i> Seungchan Kim, Ph.D. Translational Genomics Research Institute
11:15 a.m.	<i>Interactive Computational Support for Systems Biology of Aging</i> Pat Langley, Ph.D. Arizona State University
11:45 a.m.	Lunch Break
	<i><u>Session 2: Gene Regulation and Aging –The Role of RNA</u></i>
1:00 p.m.	<i>Coordinated Global RNA Dynamics</i> Jack Keene, Ph.D. Duke University Medical Center
1:30 p.m.	<i>MicroRNA Systems Biology: Tiny Companions Come of Age</i> Myriam Gorospe, Ph.D. National Institute on Aging

**2:00 p.m.**      *Rip-chip: Using RNA-binding Proteins and miRNA Targeting to Study the Human Regulatory Code*  
Scott A. Tenenbaum, Ph.D.  
University of Albany

**2:30 p.m.**      **Afternoon Break**

*Session 3: Aging and Human Systems: From Head to Toe*

**2:45 p.m.**      *Molecular and Structural Malleability of the Aging Brain*  
Mark P. Mattson, Ph.D.  
National Institute on Aging

**3:15 p.m.**      *Biology of Aging in the Hippocampal Memory System: Shift in a Computational Network*  
Michela Gallagher, Ph.D.  
Johns Hopkins University

**3:45 p.m.**      *Systematic Study of how Hearts and Arteries Age is a Daunting Ordeal*  
*Network*  
Edward G. Lakatta, M.D.  
National Institute on Aging

**4:15 p.m.**      **Afternoon Break**

**4:30 p.m.**      *Poster Session*



**Systems Biology of Human Aging Symposium  
Wednesday, December 9, 2009**



**The Biomedical Research Center, Baltimore, Maryland**

<b>6:00 p.m.</b>	<b>Symposium Adjourns for the Day</b>
<b>8:15 a.m.</b>	<b>Registration and Morning Refreshments</b>
	<i><u>Session 4: Gene Expression and Signaling in Aging Systems</u></i>
<b>8:45 a.m.</b>	<i><b>The Central Role of Muscle Impairment in Unsuccessful Aging</b></i> <b>Luigi Ferrucci, M.D., Ph.D.</b> National Institute on Aging
<b>9:15 a.m.</b>	<i><b>Signaling Pathways Control Aging – and Vice Versa</b></i> <b>Dirk P. Bohmann, Ph.D.</b> University of Rochester
<b>9:45 a.m.</b>	<i><b>A Computational Systems Biology Approach to Cellular Aging Using Feedback-loop Motifs Mediated by Stress Responses</b></i> <b>Andres Kriete, Ph.D.</b> Drexel University
<b>10:15 a.m.</b>	<i><b>An Integrated Computational Systems Biology Program: Developing the Tools Biologists Need for Modeling and Simulation in Health and Disease</b></i> <b>Ronald N. Germain, M.D., Ph.D.</b> National Institute of Allergy and Infectious Diseases
<b>10:45 a.m.</b>	<b>Morning Break</b>
	<i><u>Session 4: Gene Expression and Signaling in Aging Systems (continued)</u></i>
<b>11:00 a.m.</b>	<i><b>Systematic Analysis of Gene Regulatory Networks in Embryonic Stem Cells</b></i> <b>Minoru S.H. Ko, M.D., Ph.D.</b> National Institute on Aging
<b>11:30 a.m.</b>	<i><b>From Systems to Functional Genetics of Immunosenescence: The Drosophila Model</b></i> <b>Jeff Leips, Ph.D.</b> University of Maryland Baltimore County
	<i><u>Keynote Lecture</u></i>
<b>12:00 p.m.</b>	<i><b>Twelve Modalities of Gene Action that Escape the Force of Natural Selection and thus Contribute to Senescent Phenotypes</b></i> <b>George M. Martin, Ph.D.</b> University of Washington
<b>1:00 p.m.</b>	<b>Lunch Break</b>

**2:00 p.m.** *Discussion – Future Directions: New Directions for Aging Research*

*Session 1: Animal Models and Aging*

*Session 2: Nomenclature and Other Issues*

*Session 3: Future Directions for Aging Research*

**4:00 p.m.** Symposium Ends