



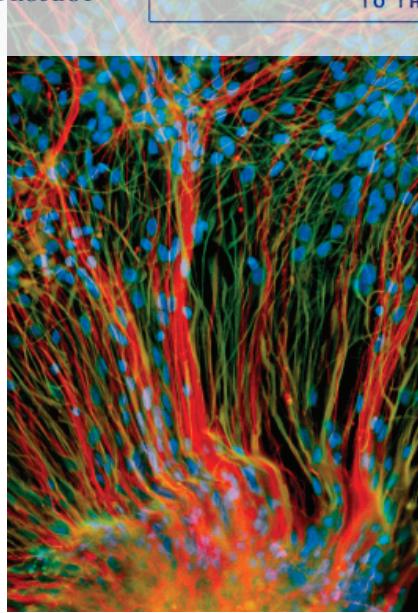
## Agenda

### Board on Life Sciences Mission

The Board on Life Sciences serves as the National Academies' focal point for a wide range of technical and policy topics in the life sciences, including bioterrorism, genomics, biodiversity conservation, and key topics in basic biomedical research, such as stem cells. The board organizes and oversees studies that provide advice to government and the scientific community on the biological sciences and their impact on society. The board maintains expertise in and understanding of the full spectrum of life science disciplines, from molecular genetics to ecology. This enables it to deal with issues of both basic science (e.g., knowledge gaps, research priorities, needed investments) and the higher level policy concerns that flow from or build on the basic science. The Board also oversees important studies on the improvement of biology education, particularly at the undergraduate level, and the maintenance of a robust life sciences workforce.

8:30 a.m. Welcome from the President <b>Ralph Cicerone</b> President of the National Academy of Sciences	11:00 a.m. <b>Susan Hockfield</b> President, Massachusetts Institute of Technology	12:00 p.m. <b>Harold Varmus</b> President, Memorial Sloan-Kettering Cancer Center	2:15 p.m. <b>Cynthia Kenyon</b> American Cancer Society Professor, UCSF	3:30 p.m. <b>Robert Fraley</b> Executive Vice President and Chief Technology Officer, Monsanto	4:00 p.m. <b>Elias A. Zerhouni</b> former Director of the National Institutes of Health	4:30 p.m. Panel Discussion	5:00 p.m. Closing Remarks <b>Keith Yamamoto</b> Chairman, Board on Life Sciences, National Research Council
8:45 a.m. <b>James P. Collins</b> Assistant Director for Biological Sciences National Science Foundation	10:15 a.m. <b>David T. Kingsbury</b> Chief Program Officer for Science Gordon and Betty Moore Foundation	11:30 a.m. <b>Susan Desmond-Hellmann</b> President of Product Development, Genentech	1:00 p.m. <b>Lucy Shapiro</b> Ludwig Professor of Cancer Research Stanford University	1:30 p.m. Panel Discussion	2:45 p.m. Break	3:15 p.m. Panel Discussion	3:30 p.m. Closing Remarks <b>Keith Yamamoto</b> Chairman, Board on Life Sciences, National Research Council
9:15 a.m. <b>Raymond L. Orbach</b> Undersecretary for Science United States Department of Energy	9:45 a.m. <b>Thomas R. Cech</b> President, Howard Hughes Medical Institute	12:30 p.m. <b>Harold Varmus</b> President, Memorial Sloan-Kettering Cancer Center	2:15 p.m. <b>Cynthia Kenyon</b> American Cancer Society Professor, UCSF	3:30 p.m. <b>Robert Fraley</b> Executive Vice President and Chief Technology Officer, Monsanto	4:00 p.m. <b>Elias A. Zerhouni</b> former Director of the National Institutes of Health	4:30 p.m. Panel Discussion	5:00 p.m. Closing Remarks <b>Keith Yamamoto</b> Chairman, Board on Life Sciences, National Research Council
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## The Role of the Life Sciences in Transforming America's Future



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The 2008 National Academies Biology Summit  
December 3rd, 2008  
1200 New York Avenue NW  
Washington, D.C. 20005

Organized by the Committee on A New Biology for the 21st Century: Ensuring the United States Leads the Coming Biology Revolution

Board Director: Fran Sharples

# Committee on A New Biology for the 21st Century: Ensuring the United States Leads the Coming Biological Revolution

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DuPont Company

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Dennis A. Ausiello

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Margaret Jean McFall-Ngai  
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Elliot Meyerowitz  
California Institute of Technology

Shoshana J. Wodak  
University of Toronto

Keith R. Yamamoto  
University of California, San Francisco

The National Academies provide a public service by working outside the framework of government to ensure independent advice on matters of science, technology and medicine. It enlists committees of the nation's top scientists, engineers, and other experts—all of whom volunteer their time to study specific concerns. The results of their deliberations have inspired some of America's most significant and lasting efforts to improve the health, education, and welfare of the population.



OBAMA-BIDEN TRANSITION PROJECT  
THIS DOCUMENT WAS PRODUCED BY AN OUTSIDE PARTY AND SUBMITTED  
TO THE OBAMA-BIDEN TRANSITION PROJECT

Today's Summit is part of a National Academies study entitled "A New Biology for the 21st Century". The study committee members are listed on the adjacent page. The committee has been asked to evaluate the changing landscape of the biological sciences, and to address the following questions:

- What fundamental biological questions are ready for major advances in understanding?
- What would be the practical result of answering those questions?
- How could answers to those questions lead to high impact applications in the near future?
- How can federal agencies more effectively leverage their investments in biological research and education to address complex problems?
- In what areas would near term investment be most likely to lead to substantial long-term benefit and a strong, competitive advantage for the United States?
- What are the major impediments to achieving a newly integrated biology?
- What are the implications of a newly integrated biology for infrastructure?
- How should infrastructure priorities be identified and planned?
- What are the implications of a newly integrated approach to biology for the life sciences research culture?

This Summit's proceedings will be published in early 2009. In a subsequent report, to be published in the fall of 2009, the committee will recommend actions that federal policy makers can take to ensure that the United States takes the lead in the emergence of a biological science that will support a higher level of confidence in our understanding of living systems, thus reducing uncertainty about the future, contributing to innovative solutions for practical problems, and allowing the development of robust and sustainable new technologies.

