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## About MEWG

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In July 1995, the Biotechnology Research Subcommittee (BRS), an Inter Agency Coordinating Committee under the office of Science and Technology Policy (OSTP), released the report "Biotechnology for the 21st Century: New Horizons" that identifies research priorities and opportunities in biotechnology. This report described the promise of this new technology and included an assessment of federal roles relating to its advancement. One of the research priorities included the need for a better understanding of metabolic pathways and metabolic engineering in living systems. To stimulate increased awareness and attention to this field, the BRS established the MEWG. The MEWG is comprised of representatives from eight federal agencies who work together to facilitate assistance to those investigating application of metabolic engineering principles in a wide range of areas.

Metabolic Engineering is a new approach to understanding and using metabolic processes. As the name implies, ME is the targeted and purposeful alteration of metabolic pathways found in an organism in order to better understand and use cellular pathways for chemical transformation, energy transduction, and supramolecular assembly. Knowledge acquired from this research will benefit society in a number of ways, including the ability to modify biological pathways to produce biological substitutes for less desirable chemical processes; allowing greater agricultural production, permitting more efficient and safer energy production, and; providing better understanding of the metabolic basis for some medical conditions that could assist in the development of new cures.

To accomplish its mandate, the MEWG has been active through monthly meetings, annual workshops and occasional seminars. From these interagency sessions, two major initiatives were identified: announcements of interagency, rather than agency-specific opportunities for funding research grants, and; the beginnings of a government-wide [Metabolic Engineering Project Inventory](#). The preceding link provides access to that Inventory.

Amongst these various activities, MEWG has held four grant competitions (NSF 98-49, NSF 99-85, NSF 01-19, and NSF 02-37)). The first competition resulted in 19 proposals with five awards totalling \$3.6M, the second competition resulted in 29 proposals with six awards totalling \$3.1M, and the third competition resulted in 13 awards made from 33 proposals with total funding of \$7.5 million. Awards from 47 proposals for the fourth competition are currently being processed. In addition the MEWG has held several [workshops](#).

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## **Audience:**

Although the MEWG welcomes everyone to peruse this site, MEWG workgroup members, Federal research Program Managers, and researchers are the intended audience and will be expected to use this site in different ways. Program managers will look for projects related to those they are funding or intend to fund and for potential applicants to whom they might address invitations to apply to announcements. They also will look for meetings and other events open to them. The Metabolic Engineering Workgroup Members will look for trends in research funding in order to plan future joint announcements of opportunities and to plan other activities, such as workshops, based on current research. Information on principal investigators may help in selecting speakers for meetings. Researchers will want to see which agencies are funding specific types of projects, in order to focus their research plans. They may also be interested in activities sponsored by the Working Group.

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## **Participating Departments and Agencies**

### [Department of Agriculture](#)

Contacts:[Liang-Shiou Lin](#)/[Gail McLean](#)/[Chavonda Jacobs-Young](#)

### [Department of Defense](#)

Contacts:[Harold Bright](#)/[Eric Eisenstadt](#)

### [Department of Energy](#)

Contacts:[Valerie Sarisky-Reed](#)/[Greg Dilworth](#)/[Daniel Drell](#)

### [Environmental Protection Agency](#)

Contacts:[Michael Broder](#) /[Mark Segal](#)/[Barbara Karn](#)/[April Richards](#)

### [National Aeronautics Space Administration](#)

Contact:[Steven Davison](#)

### [National Institute of General Medical Sciences \(NIH\)](#)

Contacts:[Warren Jones](#)/[Jim Anderson](#)

### [National Institute of Standards and Technology](#)

Contact:[Vincent Vilker](#) /[Travis Gallagher](#)

### [National Science Foundation](#)

Contacts:[Fred G. Heineken](#)/[James Lee](#)/[Neil Hoffman](#)/[Stephen Herbert](#)

