Project Inventory

[Report On] [1st Announcement] [_2nd Announcement] [_3rd Announcement]

The Inventory

Purpose:

This listing is intended to capture, store and link to documents relating to Metabolic Engineering projects being sponsored by federal agencies. The group interested in these projects is comprised of scientists from eight federal departments or independent agencies with responsibilities for furthering metabolic engineering research. This resource serves as an inventory of these efforts.

Content:

The Metabolic Engineering Project Inventory listing contains records, one per project. Each of the entries represents a research project in the area of metabolic engineering (ME) funded by a federal agency. The listings contain information on the grantee, the project purpose, grant (amount and time-frame) and the supporting federal agency or department.

Each project is categorized by funding department or agency, supporting institution and principal investigator. The records are organized by each of these categories, with expanded descriptions reached through use of the navigational links in some cases. For projects funded from two joint announcements there are separate documents for each project. However, the tables list only the names and institutions of the Principal Investigators (PI). Co-PI names are listed in the main documents for

each PI, with a document for each Co-PI linked to the main document for the PI. The document for a Co-PI can only be reached through the link from the main document for the PI of the project. Because of these linkages, some information common to the project, for both PI and Co-PIs, is not repeated in the document for the Co-PI.

Projects described here often have been supported by more than one federal agency. Therefore, to accommodate the varying needs of the funding agencies, some projects will have been broken into discrete elements, each having a unique identifier, sometimes with separate titles and descriptions. Where appropriate, funding amounts shown for each investigator are aggregate amounts from the different sources. This Inventory provides separate documents for each separately funded element, but links these projects in the tables and cross-links them within the separate document pages, where such pages exist.

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Background:

Metabolic engineering is an emerging approach to the understanding and utilization of 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 utilize cellular pathways for chemical transformation, energy transduction, and supramolecular assembly. ME typically involves the redirection of cellular activities by the rearrangement of the enzymatic, transport, and regulatory functions of the cell through the use of recombinant DNA and other techniques. Much of this effort has focused on microbial organisms, but important work is being done in cell cultures derived from plants, insects, and animals. Progress in ME depends upon knowledge that includes conceptual and technical approaches necessary to understand the integration and control of genetic, catalytic, and transport processes. While this knowledge will be valuable as fundamental research, per se, it will also provide the underpinning for many applications of immediate value.

The Metabolic Engineering Working Group was created in 1995 by the Biotechnology Research Subcommittee (BRS), an Inter Agency Coordinating Committee under the office of Science and Technology Policy (OSTP), in response to a need identified in their report, "Biotechnology for the 21st Century: New Horizons". This Working Group has already held two interagency workshops on the subject and released an Interagency Announcement of Opportunities in Metabolic Engineering . At the second of its annual workshops, a need for compiling information on current research in metabolic engineering was identified and the creation of a data resource was recommended. This Inventory is the response of the Working Group to that need.

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Audience:

Federal Program Managers, workgroup members, and researchers will use this database 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. The 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.

Expected Update Schedule/Cycle:

It is expected that the listing will be updated as each agency completes its annual funding cycle. New projects will be listed at that time. The Working Group has not yet determined whether, and for how long completed projects will be retained in the listings. Users are encouraged to comment on this issue by email to the technical contacts listed below. Current projects will, of course, remain posted for the duration of the project. Information on specific projects will be supplied by the primary funding agency. Due to the nature of the Working Group and its Interagency Announcements, all listed projects should have more than one funding agency, but one agency may be designated as the lead for a given component of the project. That agency will be responsible for the information to be listed on the project. Contacts for each responsible agency or department will be provided in each project document.

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Contacts:

The contact for inventory content is Dr. Mark Segal, U.S. EPA at (202)-260-3389.

The web site manager is Stephen Gould, WTEC, (240)-351-3815.

The web designer/consultant is Sam Monbo, WTEC, 410-276-7797

Agency contacts for the Metabolic Engineering Working Group are as follows: MEWG Contacts

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