



## About caBIG

The cancer Biomedical Informatics Grid, or caBIG, is an informatics infrastructure that will connect teams of cancer and biomedical researchers together to enable them to better develop and share tools and data in an open environment with common standards. caBIG will create a voluntary virtual network (or grid) that links individuals and institutions both nationally and internationally, effectively forming a World Wide Web of cancer research.

Specific biomedical research tools that are being developed as part of caBIG activities include standards-based, components-based clinical trial management systems, tissue banks and pathology tools and a rich collection of integrative cancer research applications. Related data sets within these domain areas will also be accessible to researchers via the caBIG grid. To ensure consistency, standards and tools will be created to support common usage of vocabularies, data elements, and the formation of a unifying architecture for the caBIG community.

caBIG will allow researchers to answer research questions more rapidly and efficiently, thereby promising to accelerate progress in all aspects of cancer research—from etiologic research to prevention, early detection and treatment. Ultimately, because caBIG will provide a common unifying force that facilitates progress in cancer research, the most important beneficiaries will be cancer patients and the public at large.

## The Need for caBIG

Cancer researchers now collect and analyze massive amounts of data, but harvesting important insights from that data is the real challenge. To take full advantage of this data, cancer researchers need the ability to easily share tools, data and infrastructure according to agreed upon, common standards. This is exactly what caBIG seeks to do.

## Establishing caBIG

The caBIG pilot program was announced in July 2003 under the coordinating supervision of the National Cancer Institute (NCI). Since then, more than 50 NCI-designated cancer centers have worked in partnership with NCI to identify common needs and to develop the vision, approach and structure of caBIG. Participating cancer centers also contributed project ideas to test the feasibility of caBIG based on existing innovative tools and available data sets. In February 2004, all caBIG pilot participants met in Washington, D.C. for the first time to initiate caBIG project activities.

## caBIG Structure and Activities

caBIG activities are organized by Workspaces, each addressing an area of need as identified by the cancer research community. Within individual Workspaces, participants undertake project activities as Developers or Adopters. Specific software applications and solutions are produced or modified by Developers and tested, validated and applied by Adopters. Participants are actively involved in setting the priorities for the projects and selection of the tools chosen for development. The final products are shared amongst the caBIG community and openly available to all who want to use them. Working Groups (Workspace level and Strategic level) have also been established to provide guidance and support to the caBIG Workspaces and to the caBIG initiative as a whole.

## caBIG Access and Participation

All caBIG activities are being undertaken according to open source, open access and open development principles and are based on common standards. This means that all caBIG products, solutions and data sets are accessible to the caBIG community and any others who want to participate. Anyone can choose to contribute to the diverse activities of the grid and voluntarily participate as a member of the caBIG group. Innovative and diverse individual contributions to caBIG will help ensure the success of the grid in the long term.

## The Future of caBIG

As the caBIG network is established, additional participants from NCI, other NIH institutes and interested federal agencies, industry groups and the broader biomedical community will be encouraged to join caBIG. The NCI envisions that caBIG will evolve into a large community of voluntary participants from national and international biomedical research fields, all of whom share a common commitment to the importance of open and shared bioinformatics tools, standards, infrastructure and data.

## Further Information about caBIG

To learn more about progress of caBIG Workspaces and Working Groups and to view an inventory of tools available to the cancer community, please visit the caBIG home page at <http://caBIG.nci.nih.gov>. To view an interactive overview on caBIG, please visit the caBIG homepage (<http://caBIG.nci.nih.gov>) and select “caBIG Interactive Overview” from the “News/Events” sidebar.

For further information on caBIG, please see <http://caBIG.nci.nih.gov>

If you have an inquiry about caBIG, please e-mail [caBIGinfo@cancer.gov](mailto:caBIGinfo@cancer.gov)

### caBIG Workspaces & Working Groups:

- Clinical Trial Management Systems
- Tissue Banks & Pathology Tools
- Integrative Cancer Research
- Vocabularies & Common Data Elements
- Architecture

### caBIG Strategic Level Working Groups:

- Strategic Planning
- Data Sharing & Intellectual Capital
- Training

